CDM Smith
5400 Glenwood Ave, Suite 300
Raleigh, North Carolina 27612
tel: 919 787-5620
fax: 919 781-5730

October 6, 2014

Ms. Jaclynne Drummond, Hydrogeologist
North Carolina Department of Environment and Natural Resources
Environmental Compliance Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Subject: Buncombe County Landfill – Permit # 11-07
MW-3 Gas Issue – Construction Certification

Dear Ms. Drummond:

On behalf of the Buncombe County Solid Waste Management Program (County), CDM Smith is pleased to submit the landfill gas (LFG) migration trench construction certification for your review. As detailed in your letter dated August 22, 2013 titled *Buncombe County Landfill – Permit # 11-07 MW-3 Gas Issue*, the County proposed to install a trench along the liner limits within the area where the methane gas appeared to be migrating as evidenced by stressed vegetation. Construction was completed by NHM Constructors LLC, from September 8 to September 12, 2014. CDM Smith had full-time construction inspection. Daily reports and construction photographs are presented in **Appendix A**. In addition, the as-built drawing is included in **Appendix B**.

If you have any questions, or need any additional information, please contact me at 919-325-3574.

Very truly yours,

Kenton J. Yang
CDM Smith

CC: J. CreightonD. Cottrell/D. Brigman/S. Hunter/K. Smith/A. McKinzie – Buncombe County
C.Gabel/M. Colone – CDM Smith

Appendix A

CDM Smith Construction Inspection Daily Reports

DAILY CQC REPORT

PROJECT: BUNCOMBE COUNTY SOLID WASTE FACILITY LANDFILL GAS TRENCH

DATE: 9/8/14 Mon REPORT # 01 WEATHER: P/cldy, 0.0" in ga TEMP.: AM 67 PM 80

CONTRACTOR: NHM Constructors, LLC. Subcontractors: , EFI

Visitors: Mike Brinchek.

Contract Time 5 days Notice to Proceed: 0/0/00

Substantial Completion Date: 0/0/00 Final Completion Date: 0/0/00

Log:

NHM Personnel: Doyle has a crew of 7 digging spot holes to find 24" header edge of liner. Doyle and Don return from NHM meeting before site meeting. After the meeting Doyle gets the mini excavator and starts making the cut from the east end and working west, shovel crew digs last 6" of cover to liner. About 90% ditch is cut for Advantage pipe in the course of the day.

NHM receives Advanedge pipe & fittings, gas well assemblies, HDPE pipe, geotextile, tarp wrapped with pallett.

Coordination meeting was held at 10 AM. Mike Brinceck, JCM attend for CDM Smith, Julie and Doyle for NHM, numerous for Buncombe County.

Photos

Advanedge pipe trench is being cut from east working west, looking west from east. Soil is stacked up slope from cut, rock and old sandbags.

Materials received, textile, Advanedge pipe & fittings, HDPE pipe, gas well assemblies and ground cover rolls under pallet at the back of the stockpile area, looking north.

Looking down at 24" header, 1" airline adjacent to 24" and 6" force main near liner edge, west pipe saddle location prepared for saddle.

Force main pipe is exposed in trench as excavation works around bend toward west end.

Deficiencies and Corrective Actions:

Outstanding Items: NHM has the adapters from Advanedge pipe to round, they will have to be trimmed from 4" to 6" opening.

Attachments/Deliveries: Materials listed above with photo.

Equipment:

Cat 303.5E mini Excavator (1), Cat 930 G Loader (1), Rammax mini Roller, lots of shovels.

EFR/QA/QC Manager: *Jack McHugh* JCM is on site(7:38am to 5:30pm,) **Date:** 9/8/14

*Report # is elapsed number of days of the contract.

DAILY CQC REPORT

PROJECT: BUNCOMBE COUNTY SOLID WASTE FACILITY LANDFILL GAS TRENCH

DATE: 9/9/14 Tues REPORT # 02 WEATHER: P/cldy, 0.0" in ga TEMP.: AM 65 PM 81

CONTRACTOR: NHM Constructors, LLC. Subcontractors: , EFI, pipe welding vender.

Visitors: David the General Superintendent was on site.

Contract Time 5 days Notice to Proceed: 0/0/00

Substantial Completion Date: 0/0/00 Final Completion Date: 0/0/00

Log:

NHM Personnel: Doyle and crew of 5 digging west end of trench, then move mini excavator and laborers to find 24" header at second saddle location. After that Doyle gets the mini excavator and starts making the cut from the east end and working west, cutting the anchor trench, shovel crew cleans it up. Saddles welded onto 24" pipe at both locations by Vender providing the welding machine, JCM receives the print outs from the welds. Crew slowly backfills and tamps the fill around the exposed pipes using a bar under the haunches of the pipe and a jumping jack on the flat areas of the two gas well head locations. Crew worked 7 AM to 5:30 PM.

NHM while cutting the existing geotextile and folding out of the way for the tarp weld finds torn liner under the in place textile. The crew digs around as needed to expose and clean the limits of the tears on the cell top of berm location. JCM recovers 60 mil HDPE from the facility bone yard, EFI welds the patch and vacuum tests those patches, JCM documents locations, first repair to 60 mil is 145'-148' east about 1 PM, second repair was 76'-93' east about 3 PM, third location was not welded by the end of the day.

EFI arrives on site at 12:25, unpack tarp at staging area, they question if HDPE rod will bond to tarp. A short test strip is done at the east end approximitly 1' by 6', it bonds fine. Work gets going deploying the tarp, the south lane of the road is blocked off with cones and the tarp is rolled down the hill and off the core. NHM and EFI move the tarp into place, EFI starts to leister, grind and weld from the east end(308'east) to the west stopping at (104'east).

Photos

Looking at the open trench, to the left is the 1' anchor trench which is being cut working west, looking west from east. Soil is stacked up slope from cut, 57 stone and old sandbags to the right, textile exposed but not yet cut in the trench.

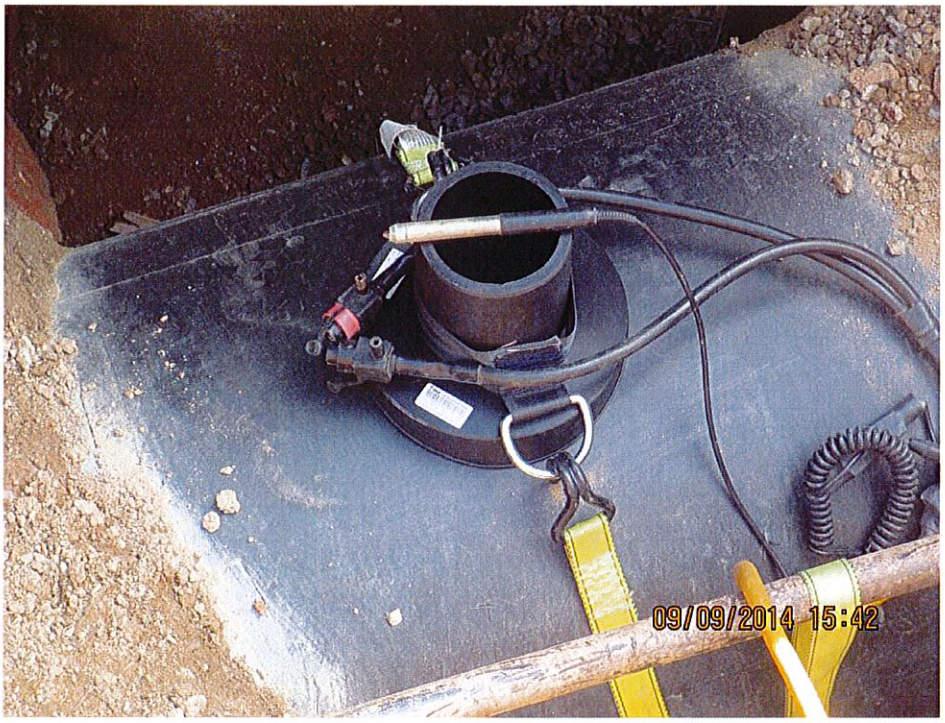
Doyle scrapes the 24" HDPE pipe clean where the saddle is to be installed, looking down and west.

Looking down at 24" EFI doing a practice weld of tarp strip to existing 60 mil liner, weld was satisfactory to all participating, real welding to get going, EFI has suggested bonding with a special double sided tape for tarps.

Looking west from the east end as EFI begins to heat tack the tarp in place, generator is located in the van to the right on the road.

As existing textile is folded back for tarp welding torn 60 mil liner was exposed and repairs made into anchor trench.

EFI technician vacuum tests 60 mil repair after welding it, looking down and south.



Electro fusion saddle is welded onto 24" header, looking down and south.

Deficiencies and Corrective Actions: Damaged liner is found under the existing geotextile as seen in above photo, 60 mil repairs are made and vacuum tested before the tarp is placed and welded by EFI.

Outstanding Items: Repairs to liner will continue as welding crew works west.

Attachments/Deliveries: Generator, Port-o-let.

Equipment:

Cat 303.5E mini Excavator (1), Cat 930 G Loader (1), Rammax mini Roller,(1) 5,600 watt generator, Port-o-let, lots of shovels.

EFR/QA/QC Manager: *Jack McHugh* JCM is on site(7:33am to 5:30pm,) **Date:** 9/9/14

*Report # is elapsed number of days of the contract.

DAILY CQC REPORT

PROJECT: BUNCOMBE COUNTY SOLID WASTE FACILITY LANDFILL GAS TRENCH

DATE: 9/10/14 Wed REPORT # 03 WEATHER: P/cldy, 0.0" in ga TEMP.: AM 65 PM 83

CONTRACTOR: NHM Constructors, LLC. Subcontractors: , EFI, BLE,

Visitors: Andrea from the State is on site.

Contract Time 5 days Notice to Proceed: 0/0/00

Substantial Completion Date: 0/0/00 Final Completion Date: 0/0/00

Log:

NHM Personnel: Doyle and crew of 5, 3 more arrive about 8 AM, backfill and compact over 24" header at each location to allow rock placement in the trench, below and above the Advantage pipe. After that the crew continues to clean off the liner ahead of the EFI crew welding the flap. After that at about 8:45 AM the textile deployment starts with about 100' at the east end, several feet of overlap is folded in place for under and up the side of the rock. 9:15 rocking 6" base and Advantage pipe placement also start at the east end. The crew repeats the textile, 6" base rock, Advantage pipe, cover rock in two more 100' plus foot sections. The locations near the two gas collection points receive rock and Advantage pipe fittings first so EFI can attach HDPE pipe assembly to tarp,(see **Deficiencies and Corrective Actions:** for more details). Cover rock continues to about 4:30, then the textile is folded back over rock. Doyle and the mini excavator cut the last 10% of toe trench for tarp anchor to the west end. After the textile is in place over the rock Doyle tapers the soil over the textile to eliminate the "16"step" in grades, after it is smoothed out by the crew the liner is folded back over the rock and soil. About 5:10 Doyle starts to place some fill on the west end of the liner while the crew places some ballast on the liner to keep it in place overnight. Crew worked 7 AM to 5:25 PM.

NHM while cutting the existing geotextile and folding out of the way for the tarp weld finds torn liner under the in place textile. The crew digs around as needed to expose and clean the limits of the tears on the cell top of berm location. JCM recovers 60 mil HDPE from the facility bone yard, EFI welds the patch and vacuum tests those patches, JCM documents locations, third location from 18-23' east was welded and vacuum by about8:30 AM.

NHM surveyor is on site about 3 PM to do as-built survey of limits of liner, Advantage pipe and fittings, 6" HDPE risers, and existing liner elevation at each end and top of grade adjacent to each end of the trench. The location of the tarp to liner weld is not surveyed since it has already been covered with other materials. Additional survey will be done later when well pipe and final grading is done.

EFI arrives on site at 07:00, EFI starts to leister, grind and weld from (104'east) to the west end,(0' east) including the 60 mil patch 18-23' east. About 9:40 EFI completes the tarp weld and starts helping NHM to get the area ready to be booted by the gas collection points. There is not enough room to install the prefabricated boot of the prefabricated HDPE pipe assembly for the gas wellhead, options are discussed in the field then concurrence from the office. The two penetrations are welded by 12:35, and EFI packs up to depart.

Ben from BLE is on site to do densities on the compacted soil by the two gas collection points about 11 AM, Ben gets one density at each and takes a sample to get a proctor, after NHM gets another compacted lift in each location a second density is taken at each. Sometime after noon he is complete and departs.

Photos

Looking northeast at the open trench from the west end, EFI is starting to continue the leister, grind, weld routine to finish up.

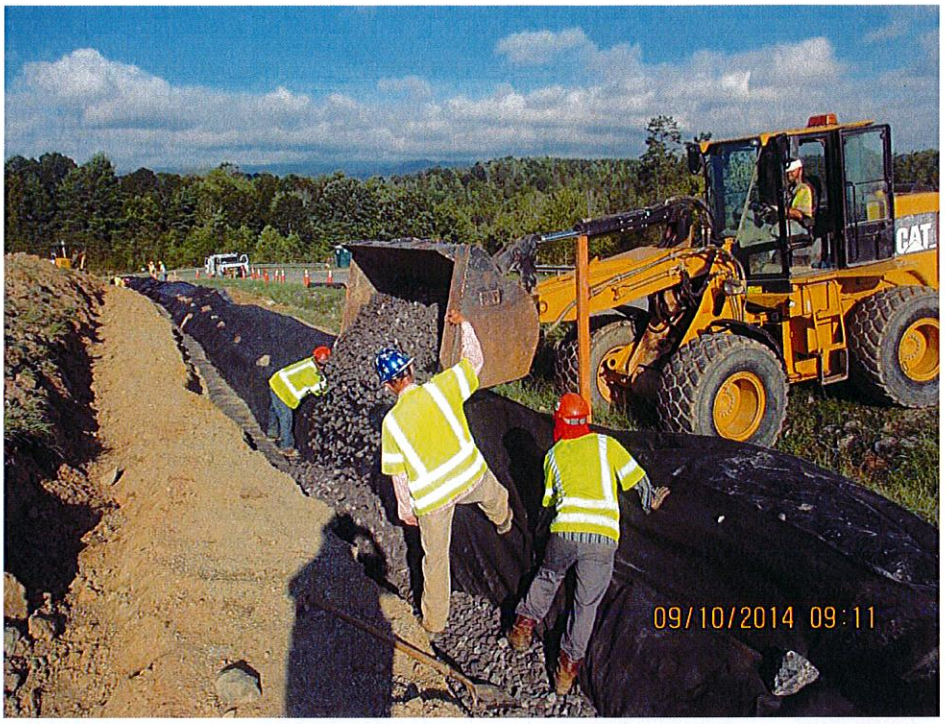
Another small tear in the 60 mil liner is uncovered, patched and vacuum tested 18-23' east, looking down and northeast.

Looking down at 18-23' east repair after EFI did the patch and vacuum test.

Looking northeast from the road at the two loads of #3 rock that just arrived, some of it is wet and looks darker.

As fill is added to the gas collection area hole from digging down to 24" header, a wacker packer is used to get compaction before testing.

Textile section of about 100' is placed in the trench over the liner weld, then the existing textile folded back on top, looking west from the east end of trench.



6" of base rock is placed in the bottom of the trench then leveled out, looking west from east end.

Advantage pipe is placed on top the 6" rock base and an end cap is placed on the east end, looking west.

Rocking over the Advantage pipe continues from east to west, looking from east to west.

After rock is graded in place the textile is pulled over the top in preparation for pulling the tarp back over, looking west from the east end.

The tarp is extrusion welded to the 4-6" fitting instead of using a boot that would not fit the prefabricated HDPE assemblies, looking west from inside the trench.

Advantage pipe is clipped to "tees" at gas collection locations, fitting to the right takes Advantage pipe to 4" round, looking down and west. The "Tee" is not slotted so it does not have textile cover like the pipe.

The soil upslope from the rocked trench is regarded to remove a hump from the depth to existing liner that got deeper to the west half, looking west.

After textile placement and finish grading the tarp is pulled back over the trench area, looking west.

The west end of the tarp is folded back to the east over the textile covered rock, the excess tarp liner is folded over and has some soil shoveled on to it to hold it in place overnight, looking east.

Deficiencies and Corrective Actions: Damaged liner is found under the existing geotextile as seen in above photo, 60 mil repairs are made and vacuum tested before the tarp is placed and welded by EFI.

Outstanding Items: .

Attachments/Deliveries: Six truck loads adding up to 75 tons of rock.

Equipment:

Cat 303.5E mini Excavator (1), Cat 930 G Loader (1), Rammax mini Roller,(1) 5,600 watt generator, Port-o-let, lots of shovels.

EFR/QA/QC Manager: *Jack McHugh* JCM is on site(7:23am to 5:25pm,) **Date:** 9/10/14

*Report # is elapsed number of days of the contract.

DAILY CQC REPORT

PROJECT: BUNCOMBE COUNTY SOLID WASTE FACILITY LANDFILL GAS TRENCH

DATE: 9/11/14 Thur REPORT # 04 WEATHER: P/cldy, 12:20 light rain TEMP.: AM 68 PM 83

CONTRACTOR: NHM Constructors, LLC. Subcontractors: , High Country Hydroseed,

Visitors: .

Contract Time 5 days Notice to Proceed: 0/0/00

Substantial Completion Date: 0/0/00 Final Completion Date: 0/0/00

Log: NHM Personnel: Doyle and crew of 7, pull out wrinkles from tarp and put ballast dirt on the edges, Doyle uses the mini excavator to backfill over the tarp. 9:45 the compactor starts compacting the fill being placed from east to west, then breaks down around 10:45, mechanic works on it around 12:48, then it is back up and running. 2 PM Doyle and crew start setting up to install gas well heads, back to grading for grass crew, then finish wells when matt is going down. Crew worked 7 AM to 5:40 PM.

NHM while cutting the holes into the 24" header, Aaron from the County switches from generator to flare while the holes are cut into header, 3:18 Aaron bringing the generator back up, valves are back in place on both locations are closed until well heads are assembled and put in service.

NHM surveyor is not on site today, needs to finish as-built.

High Country Hydroseed arrives on site about 3:40, fills up hydroseed truck with County water, after grading is done spray hydroseed and then put down the 15 rolls of matt with plenty of staples, finish about 5:35, packs up to depart.

Ben from BLE is not on site to do densities, hoped to get them before hydroseed and matt.

Photos

Looking west at mini excavator placing soils back on the tarp liner from the ditch side.

After placing soil along ditch on the tarp the mini excavator moves up slope and starts backfilling from above, looking west.

Looking south toward the work area, the loader is moving the compactor to the work area not that soil is in place.

Looking west at the compactor as it goes back and forth on the newly placed backfill soil.

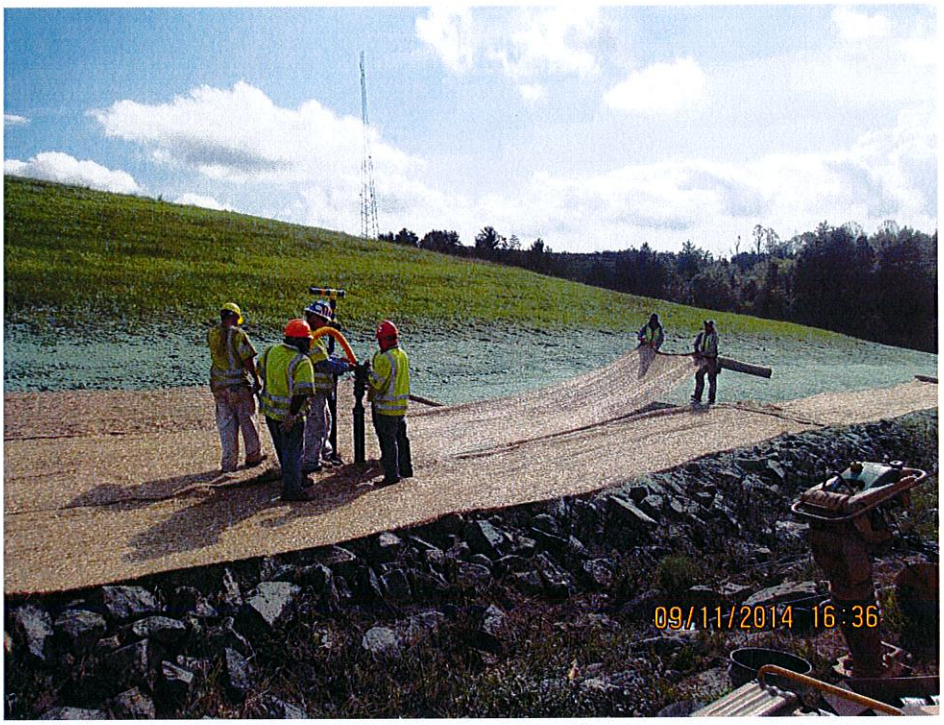
After assembling the trench materials in place the saddles on the 24" gas header are dug back up. At the west location (right side) the 6" riser is almost right next to the 4" riser location, at the east (left side) the expected location can be seen. Looking down and west in both photos.

Crew is backfilling the work toward the west end first with the mini excavator, then hand work, looking west from the central area of trench.

Electro-fusion coupling welds 4" riser to saddle on gas header, looking down at east location.

Gas Wellhead assembly is put together on the risers at the west location, looking west. Valves are opened partially to remove gas making the trench operational.

After grading and compacting soil around the gas collection locations the hydroseed subcontractor starts covering all the disturbed soil, looking west.



While the hydroseed crew places matt product over the seed product, NHM puts together the east gas wellhead assembly, looking southwest.

Matting is being placed over the hydroseed and pinned frequently working toward the west end, looking east.

Crew places numerous pins in the matting seams and middle of the sheet, looking southwest.

Deficiencies and Corrective Actions: The west well location has the 6" and 4" pipes within inches so the well head is set up in a "U" shape.

Outstanding Items: Still waiting on densities, pads at 6" risers, and final as-built shots.

Attachments/Deliveries: Grassing products.

Equipment:

Cat 303.5E mini Excavator (1), Cat 930 G Loader (1), Rammax mini Roller,(1) 5,600 watt generator, Port-o-let, lots of shovels.

EFR/QA/QC Manager: *Jack McHugh* JCM is on site(7:25am to 5:40pm,) **Date:** 9/11/14

*Report # is elapsed number of days of the contract.

West Saddle

MTD TRIFUSION report

[MAIN LINE SUPPLY]
Work date : 09-09-14 05:48 PM
Fus-memory # : 038
Serial # : RBM-110500000000
Operator : KEVINLMC
Site :NORTHWOODS SC35242
Fusion # : 0020
Temperature : +091°F
Work fitting : MANUAL
Specify time : 0350sec
Fusion time : 0350sec

	MIN	-	MAX
In voltage :	115V	-	118V
Out voltage :	27.9V	-	28.0V
Out current :	11.6A	-	18.7A

--Fusion current report(%)--

10% Fusion :	15.4A	-	18.7A
20% Fusion :	14.3A	-	15.4A
30% Fusion :	13.4A	-	14.3A
40% Fusion :	13.3A	-	13.4A
50% Fusion :	13.2A	-	13.3A
60% Fusion :	13.0A	-	13.2A
70% Fusion :	12.6A	-	13.0A
80% Fusion :	12.3A	-	12.6A
90% Fusion :	12.0A	-	12.2A
100% Fusion :	11.6A	-	12.0A

Approval : <Fusion Complete>

East Saddle

MTD TRIFUSION report

[MAIN LINE SUPPLY]
Work date : 09-09-14 06:11 PM
Fus-memory # : 039
Serial # : RBM-110500000000
Operator : KEVINLMC
Site :NORTHWOODS SC35242
Fusion # : 0021
Temperature : +091°F
Work fitting : MANUAL
Specify time : 0350sec
Fusion time : 0350sec

	MIN	-	MAX
In voltage :	116V	-	118V
Out voltage :	27.9V	-	28.0V
Out current :	11.5A	-	18.6A

--Fusion current report(%)--

10% Fusion :	15.3A	-	18.6A
20% Fusion :	13.8A	-	15.3A
30% Fusion :	12.7A	-	13.8A
40% Fusion :	12.2A	-	12.7A
50% Fusion :	11.9A	-	12.2A
60% Fusion :	11.9A	-	11.9A
70% Fusion :	11.9A	-	11.9A
80% Fusion :	11.8A	-	11.9A
90% Fusion :	11.7A	-	11.8A
100% Fusion :	11.5A	-	11.7A

Approval : <Fusion Complete>

West 4" to Saddle

[MAIN LINE SUPPLY]
Work date : 09-11-14 05:02 PM
Fus-memory # : 040
Serial # : RBM-110500000000
Operator : KEVINLMC
Site :NORTHWOODS SC35242
Fusion # : 0022
Temperature : +082°F
Work fitting : MANUAL
Specify time : 0270sec
Fusion time : 0270sec

	MIN	-	MAX
In voltage :	113V	-	117V
Out voltage :	39.3V	-	39.6V
Out current :	14.6A	-	19.2A

--Fusion current report(%)--

10% Fusion :	18.4A	-	19.2A
20% Fusion :	17.6A	-	18.4A
30% Fusion :	17.0A	-	17.6A
40% Fusion :	16.5A	-	17.0A
50% Fusion :	16.1A	-	16.5A
60% Fusion :	15.7A	-	16.1A
70% Fusion :	15.4A	-	15.7A
80% Fusion :	15.2A	-	15.4A
90% Fusion :	15.0A	-	15.2A
100% Fusion :	14.6A	-	15.0A

Approval : <Fusion Complete>

East 4" to Saddle

[MAIN LINE SUPPLY]
Work date : 09-11-14 05:29 PM
Fus-memory # : 041
Serial # : RBM-110500000000
Operator : KEVINLMC
Site :NORTHWOODS SC35242
Fusion # : 0023
Temperature : +093°F
Work fitting : MANUAL
Specify time : 0270sec
Fusion time : 0270sec

	MIN	-	MAX
In voltage :	113V	-	117V
Out voltage :	39.3V	-	39.6V
Out current :	14.7A	-	19.4A

--Fusion current report(%)--

10% Fusion :	19.4A	-	19.4A
20% Fusion :	17.9A	-	19.4A
30% Fusion :	17.3A	-	17.9A
40% Fusion :	16.8A	-	17.3A
50% Fusion :	16.4A	-	16.8A
60% Fusion :	16.1A	-	16.4A
70% Fusion :	15.8A	-	16.1A
80% Fusion :	15.3A	-	15.8A
90% Fusion :	15.0A	-	15.3A
100% Fusion :	14.7A	-	15.0A

Approval : <Fusion Complete>

DAILY CQC REPORT

PROJECT: BUNCOMBE COUNTY SOLID WASTE FACILITY LANDFILL GAS TRENCH

DATE: 9/12/14 Fri REPORT # 05 WEATHER: P/cldy, TEMP.: AM 64 PM 80

CONTRACTOR: NHM Constructors, LLC. Subcontractors: , BLE,

Visitors: .

Contract Time 5 days Notice to Proceed: 0/0/00

Substantial Completion Date: 0/0/00 Final Completion Date: 0/0/00

Log:

NHM Personnel: Doyle and crew of 2, do another site clean-up with loader hauling debris to the landfill, load compactor and mini excavator on a low boy early. Crew forms, puts wire in the form and mix sack concrete to make the housekeeping pads by the two gas collection pipes. One per drawing(east), then west location a bigger pad to contain both pipes since they are so close together. Crew worked on site 8 AM to ?? PM.

NHM will come back this afternoon to strip forms and dress up matt around the housekeeping pads.

NHM surveyor is on site today from 11:37 to 12:05, to finish as-built of liner limit to the east and 4" risers at gas collection.

NHM leaves a pallet of spare parts for the County.

Ben from BLE is on site to do densities, from 8 -9 AM, Ben does densities right over hydroseed and matt, he says his boss says it is OK.

Photos

Looking southwest at mini excavator and compactor loaded up on transport truck to depart site.

The housekeeping pad around the east gas collection riser has wire prior to sack concrete placement, looking east.

Looking west at west housekeeping pad, because the risers were so close together one larger pad was used to include both risers.

Looking northwest at the pallet of spare parts left for the County, just north of the road.

Jobsite as seen from above about the time we were taking densities, looking down from above and looking northwest.

Deficiencies and Corrective Actions: Forms on housekeeping pads will be stripped in the PM and the matting dressed up.

Outstanding Items: Still waiting on densities results/proctor and final as-built auto-cadd files.

Attachments/Deliveries: Sack Concrete bags, wire fabric, and form wood.

Equipment:

Cat 303.5E mini Excavator (1) gone AM, Cat 930 G Loader (1), Rammax mini Roller,(1) gone AM , Port-o-let.

EFR/QA/QC Manager: *Jack McHugh* JCM is on site(7:40am to 12:10pm,) **Date:** 9/12/14

*Report # is elapsed number of days of the contract.

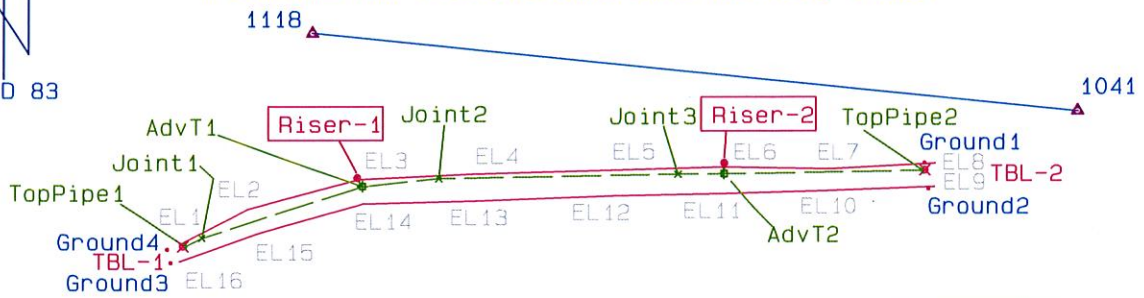
Appendix B

As-built Drawing

CONTROL POINTS PROVIDED BY ED HOLMES & ASSOCIATES			
Pt #	Northing	Easting	Elevation
1041	739278.8861	920791.4711	2020.64
1118	739310.2843	920480.5731	2002.11

ALL COORDINATES SHOWN WHERE SURVEYED BY COORDINATES PROVIDED FROM ED HOLMES & ASSOCIATES FROM TOPOGRAPHIC SURVEY DATED MARCH 2007, & 2009.

NAD 83



Coordinate Table of Liner Limits				
Pt #	Northing	Easting	Elevation	Descriptor
EL1	739225.4846	920426.4452	0.00	Edge liner
EL2	739239.4531	920454.0797	0.00	Liner limits
EL3	739251.3949	920498.9318	0.00	Liner Limits
EL4	739253.5612	920546.0075	0.00	Liner limits
EL5	739255.1672	920601.7982	0.00	Liner limits
EL6	739256.4062	920647.2287	0.00	Liner Limits
EL7	739255.6643	920690.7705	0.00	Liner limits
EL8	739257.8900	920733.6251	0.00	Edge-liner
EL9	739248.5039	920733.3030	0.00	Edge-liner
EL10	739246.9062	920689.6307	0.00	Liner limits
EL11	739245.7550	920648.0394	0.00	Liner limits
EL12	739244.8521	920602.4375	0.00	Liner limits
EL13	739242.8602	920547.3290	0.00	Liner limits
EL14	739241.6511	920500.7217	0.00	Liner limits
EL15	739229.5123	920457.6998	0.00	Liner limits
EL16	739218.4999	920426.0638	0.00	Edge liner

Coordinate Table Existing Ground at End of Pipe				
Pt #	Northing	Easting	Elevation	Descriptor
Ground1	739257.9577	920729.3640	2019.90	G
Ground2	739247.6402	920730.8996	2021.94	G
Ground3	739217.8896	920422.5870	1997.73	G
Ground4	739223.2545	920421.1677	1996.57	G

Coordinate Table of Advantage Pipe Location				
Pt #	Northing	Easting	Elevation	Descriptor
TopPipe1	739224.6021	920428.4597	0.00	Top pipe
Joint1	739227.8805	920435.2881	0.00	Joint 1
AdvT1	739248.6421	920500.4732	0.00	Advantage T
Joint2	739251.8267	920531.7175	0.00	Joint 2
Joint3	739253.6025	920628.9976	0.00	Joint 3
AdvT2	739253.7483	920647.3748	0.00	Advantage-T
TopPipe2	739255.0251	920728.4564	0.00	Top pipe

Coordinate Table of Gas Risers				
Pt #	Northing	Easting	Elevation	Descriptor
Riser-1	739258.0723	920647.3069	2015.01	4"Riser
Riser-2	739252.1115	920498.4410	2003.49	4"Riser

Coordinate Table of Top of Base Liner at End of Pipe				
Pt #	Northing	Easting	Elevation	Descriptor
TBL-1	739224.5202	920427.4710	1993.84	Top liner
TBL-2	739255.1270	920729.3761	2017.88	Top Liner

AS-BUILT SURVEY

BUNCOMBE COUNTY SOLID WASTE FACILITY

LANDFILL GAS MIGRATION TRENCH

DESIGNED BY CDM SMITH

0 50 100 150

BARSCALE: 1" = 50'

NORTH CAROLINA PROFESSIONAL SEAL L-3825 LAND SURVEYOR ROBERT W. HENDRICK

NHM Constructors, LLC

Robert W. Hendrick 9/18/14

ROBERT HENDRICK, PLS-3825