GW - 356

GENERAL CORRESPONDENCE

2007 - Present

Eric J. Barndt
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May 27, 2010

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Below Grade Tank Removal and Closure Report for TK-101
Espinosa Canyon Amine Plant (Discharge Permit GW-356)
Black Hills Midstream, LLC

Dear Mr. Lowe:

This Tank Removal and Closure Report is being submitted for the removal of a Below Grade Tank that was completed during the week May 3, 2010 at the Black Hills Midstream, LLC (Black Hills) Espinosa Canyon Amine Plant (Discharge Permit GW-356). The Below Grade Tank removal follows email correspondence between Mr. Carl Chavez, with Oil Conservation District (OCD) and me, dated April 28, 2010. My April 28 email provided details related to the discovery of a leak in the inner wall of a dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-101 (Glycol Drain Tank). The leak was discovered when the system was pressurized with nitrogen gas while conducting preliminary underground pipeline integrity testing. There are no valves in the tank system between the process and the inlet to the below grade tank or between the tank outlet and the loadout station. Therefore when conducting the preliminary tests we pressurized the system with nitrogen from the process, through the below grade tank, and to the loadout station as one "pipe section". When the system was tested we were unable to maintain the pressure applied. Upon investigating the circumstances we discovered that the inner wall of the dual-walled tank was leaking. The leak was determined to be coming from the tank because the nitrogen gas could be heard audibly escaping into the annular space between the dual-walls through the access port. Mr. Chavez's April 28 email response provided approval of our removal plan.

Because this tank rarely receives liquids from the process it is suspected that the leak was not previously detected during the routine monthly inspections that we conduct to test for liquids in the annular space of all of our dual wall below-grade tanks. We have concluded that the leak in the tank went undetected because the liquid level in the tank never got high enough to reach the point where the leak is located on the inner tank wall and therefore never drained into the annular space between the inner and outer walls. Due to these circumstances, the liquid has not passed from the inner wall into the annular space between it and the outer wall. This also means no liquid has not passed from the outer wall or to the surrounding and underlying soils. The original installation of this tank was approved by the OCD.

In order to properly remove TK-101 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. Details related to the facility and Below Grade Tank that was removed are as follows:

1. Location of Facility: Black Hills Espinosa Canyon Amine Plant, located approximately 16 miles southwest of Dulce in Rio Arriba County, NM.

2. Permit Number: This facility has been assigned New Mexico Energy, Minerals and Natural Resource Department (NMEMNR) Oil Conservation Division (OCD) Discharge Permit GW-356.

3. Details on Below Grade Tank Replaced:
   a. Tank Number: TK-101
   b. Tank Volume: 560 gallons
   c. Tank Material: Double Walled Steel: inner wall 3/16-inch A36 steel; outer wall protected by cathodic anodes.
   d. Tank Leak Detection Method: Manually monitoring of leak detection gauges in annular space of a double walled tank system.
   e. Material Routed to and Stored in Tank: Waste Glycol Liquids.
   f. Removal and Closure Procedures: Attachment 1 provides a detailed log of the process that was undertaken for the removal of TK-101. Please note that the removal process log provided in Attachment 1 includes details for the removal of two tanks that Black Hills excavated at the Espinosa Canyon Amine Plant on the same day (during the week of May 3), including this tank (TK-101) and TK-109. A Removal and Closure Report for TK-109 is being prepared and submitted to OCD in a separate correspondence. Attachment 1 also includes a simplified diagram of TK-101.

4. Reason for Tank Removal and Closure: Waste glycol liquid was detected while preliminary underground pipeline integrity testing associated with the tank was being conducted in April 2010.

5. Measures Taken at Time of Discovery: At the time of discovery, it was determined that liquids in the tank remained within the inner wall of the dual wall tank and had not migrated to surrounding soils. Black Hills continued to monitor for liquids in the annular space and inspect the surrounding surface soils until the tank was removed.

6. Tank Removal and Closure Plan: Since discovering this circumstance Black Hills determined that the recovered waste glycol liquids originally directed to TK-101 can be recovered in a tank truck and sent off-site for glycol regeneration, eliminating the need to replace the failed tank. Vapors that were formerly routed to TK-101 are now rerouted through the BTEX skid and to the Thermal Oxidizer (TO-101) or remain with the processed natural gas and exit the facility in the sales line to the customer, which means that no changes in facility emissions will occur as a result of the tank removal.

7. Verification of No Impacts to Surrounding Soils: Although this tank was never used to store hydrocarbons liquids (it stored glycol liquid wastes) and Mr. Chavez therefore indicated that analysis of underlying soils for MBTEX and Gasoline and Diesel Range Organics in Soil would not be required, Black Hills did take and analyze soil samples. Mr. Chavez requested that we use our best professional judgment (i.e., observe the tank and underlying and surrounding soils for wetness or staining, and use olfactory senses, etc. to determine weather glycol was released to the environment.

   In order to properly remove TK-101 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. Using best professional judgment, no evidence of leakage was observed. However, if leakage to the soil had been detected, OCD would have been notified immediately. Photographs of the tank and underlying soils were taken during this process to document the procedures and are included with this Tank Removal and Closure Report as Attachment 2.

As noted, soil samples were also taken and sent to a laboratory for analysis. The soil sample analysis is included with this Tank Removal and Closure Report as Attachment 3. The soil sample analysis indicate 'Not Detected at the Reporting Limit' results for MBTEX and Gasoline and Diesel Range Organics in Soil. Please note that the analysis provided in Attachment 3 includes results for soil samples that were taken during the removal of two tanks that Black Hills excavated at the Espinosa Canyon Amine Plant on the same day (during the week of May 3). The analytical report for TK-101 should be reviewed relative to the removal and closure of TK-101.

8. Rerouting of Materials Formerly Directed to Removed Tank: The diagram provided in Attachment 4 shows the new piping configuration and blind flanges on liquid lines that formerly drained to and from TK-101 as well as the vapor line that formerly vented from TK-101 to the Thermal Oxidizer (TO-101). The following description provides details on how materials that were formerly directed to TK-101 are now handled.
   a. Glycol Reboiler (R-102B): Liquids formerly routed to TK-101 will be drained or vacuumed directly from the Glycol Skid to a tank truck and sent off-site for glycol regeneration at a properly permitted facility. Although the Glycol Skid generates little to no hydrocarbon vapors, any remaining minor vapors that were formerly routed to TK-101 will be routed to the BTEX control unit (skid) which vents to the Thermal Oxidizer (TO-101). Liquid material generally consists of 80% glycol and 20% water.
   b. Glycol Overhead Knockout (V-105): Liquids formerly routed to TK-101 will be drained directly or vacuumed from the Glycol Overhead Knockout (V-105) to a tank truck and sent off-site for glycol regeneration at a properly permitted facility. Although the Glycol Overhead Knockout (V-105) generates little to no hydrocarbon vapors, any remaining minor vapors that were formerly routed to TK-101 will remain with the processed natural gas and exit the facility in the sales line to the customer. Liquid material generally consists of 80% glycol and 20% water.

Black Hills is not required to prepare and submit the OCD Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application (Form C-144) for the removal of TK-101 because the facility operates under a current OCD permit (Discharge Permit GW-356).

Please call me at (303) 566-3446 if you have any questions related to this Tank Removal and Closure Report.

Sincerely,

Eric J. Barndt
Black Hills

cc: Brandon Powell, OCD; 1000 Rio Brazos Road; Aztec, New Mexico 87410
Fred Carl, Black Hills Energy, Inc.
Tim Mordhorst, Black Hills
Gary Stripling, Black Hills

Attachment 1 – Tank TK-101 Removal and Closure Process Log (Black Hills Midstream Daily Report) and Simplified Diagram

5/10/2010

Black Hills Midstream

A Subsidiary of Black Hills Corporation
3200 N. 1st Street
P.O. Box 249
Bloomfield, NM 87413
Phone: (505) 634-1111 Fax: (505) 634-1116

Gary Stripling
Plant Supervisor
505-486-0314

TK-109 & TK-101 Tank Removal @ Espinosa Gas Plant

Review:

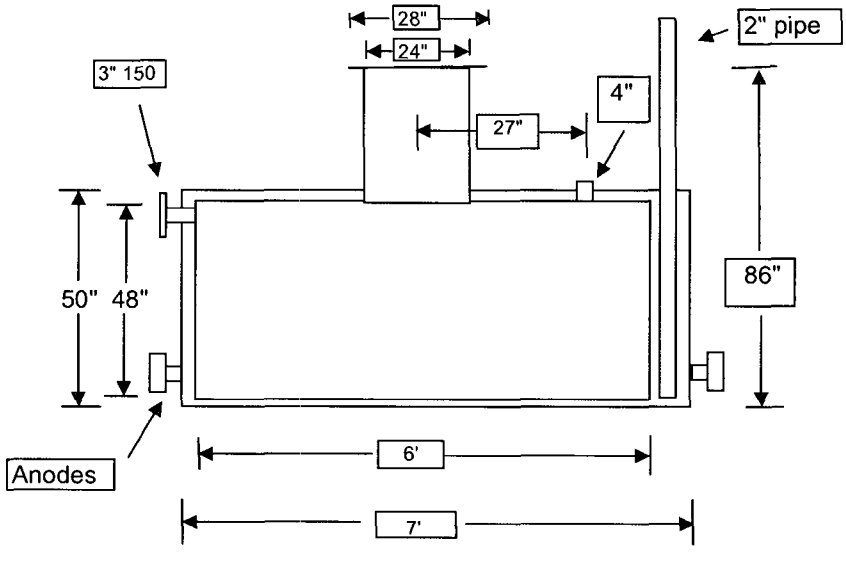
May 4, 2010 excavated TK-109 & half of TK-101 ground cover @ 9:00am by Polaris.

May 5, 2010 completed excavation on TK-101 and removed Tanks TK-101 & TK-109

May 6, 2010 pulled soil sample spot check and passed. Pulled primary samples to be sent off to lab for testing. Installing new tank for TK-109 setting and piping will test tomorrow.

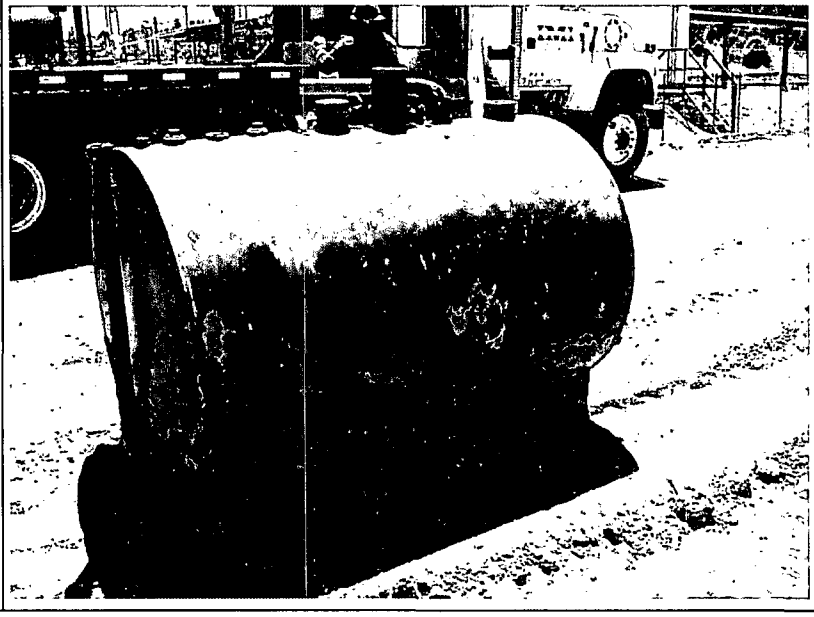
May 7, 2010 ran nitrogen pressure test for leaks. Back fill TK-109 and TK-101 hole with fresh dirt.

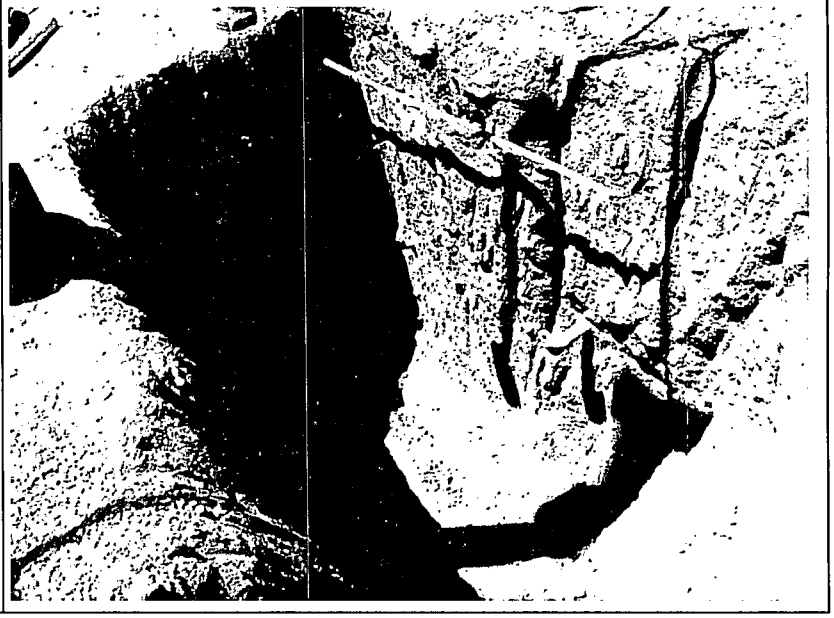
Black Hills Midstream
TK - 101 560 gal. Tank



Tank -101 received and stored small amounts of glycol waste produced by and drained from the Glycol Reboiler (R-102B), Glycol Contactor (V-104) and Glycol Overhead Knockout (V-105) at the Espinosa Canyon Amine Plant. The glycol waste was stored in the below-grade tank (TK-101) temporarily until the inner tank nearly fills. Then the material in the tank was pumped or vacuumed to a truck load-out station, and was manifested and removed from the site for recycling or disposal at a permitted facility. The tank was removed due to the failure of the inner tank wall that consists of 3/16" A36 carbon steel . The tank held 560 gallons and was provided with anodes for outer wall protection. When the leak was detected the level in the tank was lowered below point of the leakage and monitored monthly with no signs of increase in the outer wall levels. On 5-5-10 TK-109 was removed with no signs of leakage under the tank or visually observed on the tank itself. Soil samples were taken and submitted to Inter-Mountain Laboratories for analysis. Plant
operators determined that the tank is not needed and therefore was not replaced. Appropriate rerouting of lines has been completed to manage glycol waste liquids.

Attachment 2 – Photographs of Tank Replaced (TK-101) and Surrounding Soils

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-101 Below Grade Tank Removal and Closure Report
Photo No. **1** **Description:** 560 gallon Double Walled Below Grade Tank that was removed (TK-101).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-101 Below Grade Tank Removal and Closure Report
Photo No. **2** **Description:** Soil underlying location of 560 gallon Double Walled Below Grade Tank that was removed (TK-101).	

Attachment 3 – Inter-Mountain Laboratories Soil Sample Analysis

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Project: Espinosa Pit 5610
Lab Order: O1005013

CASE NARRATIVE

Report ID: O1005013002
(Replaces O1005013001)

This data package consists of the following:
Case Narrative - 1 page
Sample Analysis Reports - 2 pages
Quality Control Reports - 7 pages
Inorganic Sample Analysis Reports - 2 pages
Copy of the Chain of Custody Record - 1 page
Condition Upon Receipt form - 1 page

Samples were analyzed for organic constituents using the methods outlined in the following references:

- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, United States Environmental Protection Agency (USEPA).

All method blanks, duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Data qualifiers are defined at the bottom of each page.

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street
PO Box 249
Bloomfield, NM 87413

Date Reported: 5/27/2010
Report ID: O1005013002
(Replaces O1005013001)

Project: Espinosa Pit 5610
Lab ID: O1005013-001
Client Sample ID: Tank TK-109
Matrix: Soil

Work Order: O1005013
Collection Date: 5/6/2010 9:45:00 AM
Date Received: 5/10/2010 9:40:00 AM
COC: 129545

Analyses	Result	RL	Limits	Qual	Units	Date Analyzed/Init	
8021B MBTEXN-Soil						**Prep Date: 5/10/2010**	
Benzene	ND	0.50			mg/Kg	05/11/2010	MAB
Toluene	ND	0.50			mg/Kg	05/11/2010	MAB
Ethylbenzene	ND	0.50			mg/Kg	05/11/2010	MAB
m,p-Xylenes	ND	1.0			mg/Kg	05/11/2010	MAB
o-Xylene	ND	0.50			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	122		69-141		%REC	05/11/2010	MAB
8015C Gasoline Range Organics-Soil						**Prep Date: 5/10/2010**	
Gasoline Range Organics (nC6-nC10)	ND	10			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	121		74-135		%REC	05/11/2010	MAB
8015C Diesel Range Organics-Soil						**Prep Date: 5/11/2010**	
Diesel Range Organics (nC10-nC32)	ND	25			mg/Kg	05/12/2010	UB
Surr: o-Terphenyl	78.2		37-132		%REC	05/12/2010	UB

These results apply only to the samples tested. **RL - Reporting Limit**

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Diluted out of recovery limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Effect
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Reviewed by: Ed Scruton
Ed Scruton, Analytical Chemist

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street
PO Box 249
Bloomfield, NM 87413

Date Reported: 5/27/2010
Report ID: O1005013002
(Replaces O1005013001)

Project: Espinosa Pit 5610
Lab ID: O1005013-002
Client Sample ID: Tank TK-101
Matrix: Soil

Work Order: O1005013
Collection Date: 5/6/2010 10:50:00 AM
Date Received: 5/10/2010 9:40:00 AM
COC: 129545

Analyses	Result	RL	Limits	Qual	Units	Date Analyzed/Init	
8021B MBTEXN-Soil						**Prep Date: 5/10/2010**	
Benzene	ND	0.50			mg/Kg	05/11/2010	MAB
Toluene	ND	0.50			mg/Kg	05/11/2010	MAB
Ethylbenzene	ND	0.50			mg/Kg	05/11/2010	MAB
m,p-Xylenes	ND	1.0			mg/Kg	05/11/2010	MAB
o-Xylene	ND	0.50			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	125		69-141		%REC	05/11/2010	MAB
8015C Gasoline Range Organics-Soil						**Prep Date: 5/10/2010**	
Gasoline Range Organics (nC6-nC10)	ND	10			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	125		74-135		%REC	05/11/2010	MAB
8015C Diesel Range Organics-Soil						**Prep Date: 5/11/2010**	
Diesel Range Organics (nC10-nC32)	ND	25			mg/Kg	05/12/2010	UB
Surr: o-Terphenyl	72.4		37-132		%REC	05/12/2010	UB

These results apply only to the samples tested. **RL - Reporting Limit**

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Diluted out of recovery limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Effect
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Reviewed by: Ed Scruton
Ed Scruton, Analytical Chemist

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: 8015C_DROS

Sample ID: **MB-3995** SampType: **MBLK** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78520**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	ND	25									
Surr: o-Terphenyl					77.4	37	132				

Sample ID: **LCS-3995** SampType: **LCS** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78521**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	127.4	25	200		63.7	49	101				
Surr: o-Terphenyl					86.9	37	132				

Sample ID: **LCSD-3995** SampType: **LCSD** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78522**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	122.0	25	200	0	61	49	101	127.4	4.34	20	
Surr: o-Terphenyl				0	81	37	132	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8015C_DROS**

Sample ID: **O1005013-001Bms** SampType: **MS** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **Tank TK-101** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78524**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	100.4	25	200	0	50.2	27	98	0	0		
Surr: o-Terphenyl				0	79.6	37	132	0	0		

Sample ID: **O1005013-001Bmsd** SampType: **MSD** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **Tank TK-101** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78525**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	106.6	25	200	0	53.3	27	98	100.4	5.97	20	
Surr: o-Terphenyl				0	79	37	132	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	*Analyte detected below quantitation limits*	M	*Matrix Effect*	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8015C_GROS**

Sample ID: **MB-3993** SampType: **MBLK** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78372**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	ND	10									
Surr: 4-Bromofluorobenzene					132	74	135				

Sample ID: **LCS-3993** SampType: **LCS** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78373**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	92.21	10	90		102	76	124				
Surr: 4-Bromofluorobenzene					102	74	135				

Sample ID: **LCSD-3993** SampType: **LCSD** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78374**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	87.59	10	90	0	97.3	76	124	92.21	5.14	20	
Surr: 4-Bromofluorobenzene				0	99.2	74	135	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8015C_GROS**

Sample ID: **O1005009-010AMS** SampType: **MS** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78376**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	93.20	10	90	0	104	68	129	0	0		
Surr: 4-Bromofluorobenzene				0	103	74	135	0	0		

Sample ID: **O1005009-010AMSD** SampType: **MSD** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78377**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	86.84	10	90	0	96.5	68	129	93.2	7.08	20	
Surr: 4-Bromofluorobenzene				0	102	74	135	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q (Replaces O1005013001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **MB-3993** SampType: **MBLK** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78362**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylenes	ND	1.5									
o-Xylene	ND	0.50									
Surr: 4-Bromofluorobenzene					131	69	141				

Sample ID: **LCS-3993** SampType: **LCS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78363**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.31	0.50	10		103	76	120				
Toluene	10.88	0.50	10		109	78	127				
Ethylbenzene	10.88	0.50	10		109	81	123				
m,p-Xylenes	22.06	1.5	20		110	84	125				
o-Xylene	10.42	0.50	10		104	86	128				
Surr: 4-Bromofluorobenzene					103	69	141				

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: 8021MBTEXN_S

Sample ID: **LCSD-3993** SampType: **LCSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78364**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.645	0.50	10	0	96.5	76	120	10.31	6.66	20	
Toluene	10.24	0.50	10	0	102	78	127	10.88	5.97	20	
Ethylbenzene	10.45	0.50	10	0	104	81	123	10.88	3.99	20	
m,p-Xylenes	21.18	1.5	20	0	106	84	125	22.06	4.07	20	
o-Xylene	10.04	0.50	10	0	100	86	128	10.42	3.72	20	
Surr: 4-Bromofluorobenzene				0	101	69	141	0	0	20	

Sample ID: **O1005009-010AMS** SampType: **MS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78366**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.60	0.50	10	0	106	69	114	0	0		
Toluene	11.15	0.50	10	0	112	69	123	0	0		
Ethylbenzene	11.24	0.50	10	0	112	68	125	0	0		
m,p-Xylenes	22.78	1.5	20	0	114	70	127	0	0		
o-Xylene	10.86	0.50	10	0	109	71	131	0	0		
Surr: 4-Bromofluorobenzene				0	105	69	141	0	0		

Qualifiers:
D Diluted out of recovery limit
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
M Matrix Effect
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **O1005009-010AMSD** SampType: **MSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78367**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.890	0.50	10	0	98.9	69	114	10.6	6.98	20	
Toluene	10.42	0.50	10	0	104	69	123	11.15	6.82	20	
Ethylbenzene	10.45	0.50	10	0	104	68	125	11.24	7.24	20	
m,p-Xylenes	21.20	1.5	20	0	106	70	127	22.78	7.16	20	
o-Xylene	9.985	0.50	10	0	99.8	71	131	10.86	8.44	20	
Surr: 4-Bromofluorobenzene				0	101	69	141	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Date Reported: 5/25/2010
Report ID: S1005120002
(Replaces S1005120001)
Work Order: S1005120
Collection Date: 5/6/2010 9:45:00 AM
Date Received: 5/10/2010
Sampler: dm
Matrix: Soil

Project: Espinosa Pit 5610
Lab ID: S1005120-001
Client Sample ID: Tank TK-109
COC: 129545

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Soil Anions						
Chloride	42.8	0.01		ppm	05/12/2010 000 KO	USDA 60-3a

These results apply only to the samples tested.

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL
O	Outside the Range of Dilutions

RL - Reporting Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
L	Analyzed by a contract laboratory
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Date Reported: 5/25/2010
Report ID: S1005120002
(Replaces S1005120001)
Work Order: S1005120
Collection Date: 5/6/2010 10:50:00 AM
Date Received: 5/10/2010
Sampler: dm
Matrix: Soil

Project: Espinosa Pit 5610
Lab ID: S1005120-002
Client Sample ID: Tank TK-101
COC: 129545

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Soil Anions						
Chloride	56.1	0.01		ppm	05/12/2010 000 KO	USDA 60-3a

These results apply only to the samples tested.

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL
O	Outside the Range of Dilutions

RL - Reporting Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
L	Analyzed by a contract laboratory
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

129545

*This is a **LEGAL DOCUMENT**. All shaded fields must be completed. See reverse for instructions.*

Client Name	Project Identification	Sampler (Signature/Printed)	Telephone #
Black Hills Gas Resources	Espinosa Pit 5610	Daniel Manus / Daniel Manus	

Report Address	Contact Name	Invoice Address
3200 N 1st Street Bloomfield NM 87413	Daniel Manus Email daniel.manus@blackhillscorp Phone 505 634-1111 x 28	Same as above

Purchase Order # | Quote #

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	BTEX	GRO	DRO	CL					REMARKS
1		5-6-10	945	Tank 00955	SL	3	X	X	X	X					
2		5-6-10	1050	Tank 00155	SL	3	X	X	X	X					
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															

01005013

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Daniel Manus / Daniel Manus	5/6/10	16:00	Ed Scruton / Ed Scruton	05/10/10	0940

SHIPPPING INFO	MATRIX CODES		TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
☐ UPS	Water	WT	Check desired service:	Compliance Monitoring? Y / N	
☒ Fed Express	Soil	SL	☐ Standard turnaround	Program (SDWA, NPDES,...) —	
☐ US Mail	Solid	SD	☒ **RUSH** - 5 Working Days	PWSID / Permit # —	
☐ Hand Carried	Trip Blank	TB	☐ **URGENT** - < 2 Working Days	Chlorinated? Y / N	
☐ Other _____	Other	OT	*Rush & Urgent Surcharges will be applied*	Sample Disposal: Lab X Client	

RUSH

Inter-Mountain Laboratories, Inc., 1673 Terra Ave, Sheridan, WY 82801 ph: (307) 672-8945

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 1

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. Temps (°C): 16.5

Acceptable is 0.1 to 6°C. Also acceptable is "Received on Ice" (ROI) for samples received on the same day as sampled or "Received at Room Temperature" (RRT) for samples received within one hour of sampling.

Client contact for temperature failures must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr?	Yes	No	(N/A)
4 COC Number (If applicable): 129545			
5 Do the number of bottles agree with the COC?	(Yes)	No	N/A
6 Were the samples received intact? *(no broken bottles, leaks, etc.)*	(Yes)	No	N/A
7 Were the sample custody seals intact?	(Yes)	No	N/A
8 Is the COC properly completed, legible, and signed?	(Yes)	No	

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate?	(Yes)	No		
2 Did the bottle labels correspond with the COC information?	(Yes)	No		
3 Samples collected in proper containers?	(Yes)	No		
4 Were all containers properly preserved?	Yes	No	(N/A)	Added at Lab
Client contact for preservation failures must be documented below.				
5 VOA vials have <6mm headspace?	Yes	No	(N/A)	
6 Were all analyses within holding time at the time of receipt?	(Yes)	No		
7 Have rush or project due dates been checked and accepted?	(Yes)	No	N/A	

Attach Lab ID labels to the containers and deliver to appropriate lab section. ***Set ID:*** 01005013

Sample Receipt, Verification, Login, Labeling & Distribution completed by *(initials)* : SB

Discrepancy Documentation *(use back of sheet for notes on discrepancies)*

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: Daniel Mannus — Telephone Number: email

Initiated By: Ed Scruton — Date/Time: 05/10/10 1000

Problem: out of temp

Resolution: Run samples

Person Contacted: _____ — Telephone Number: _____

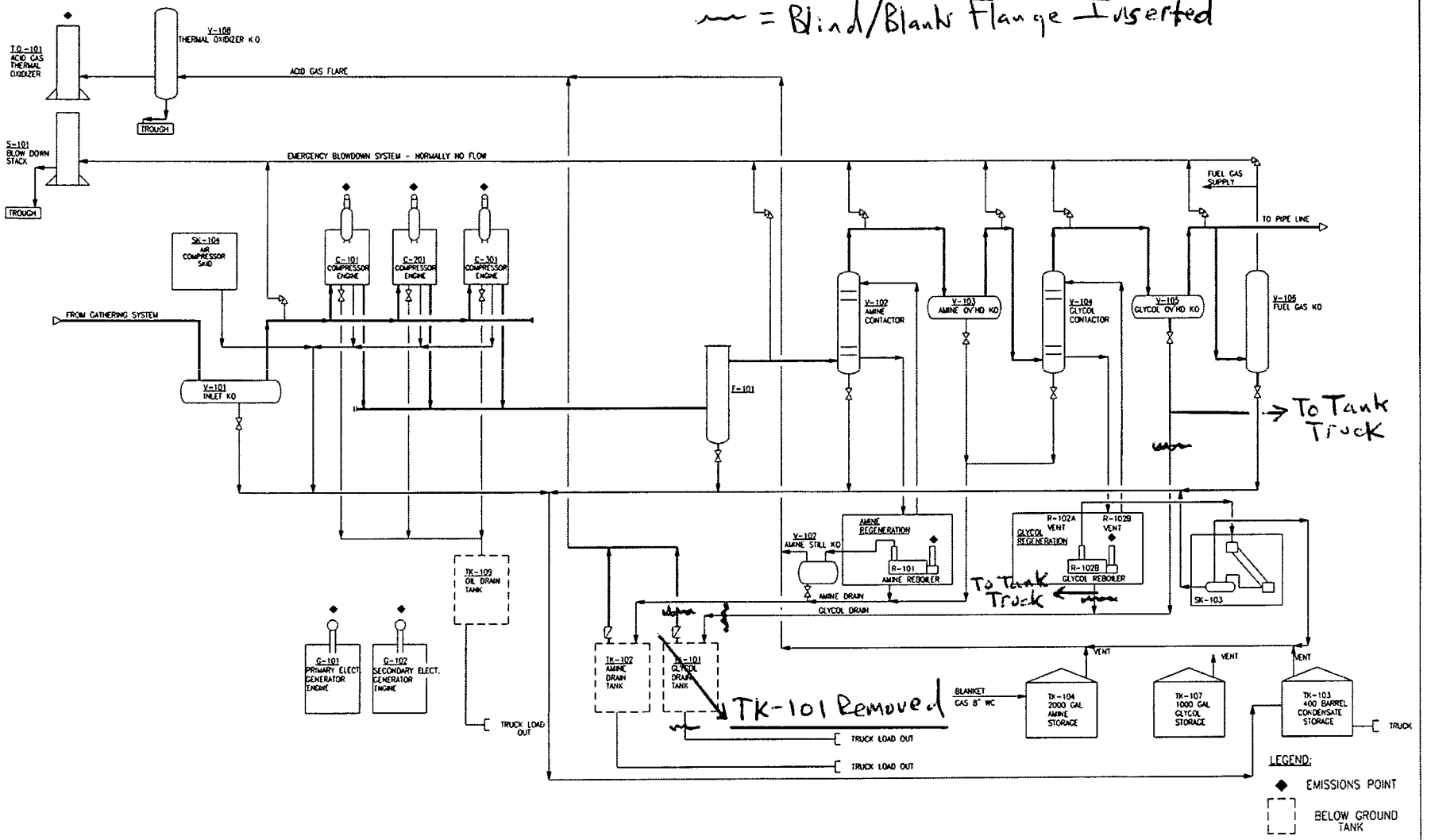
Initiated By: _____ — Date/Time: _____

Problem:

Resolution:

Attachment 4 – Revised Tank Configuration Diagram

~~~ = Blind/Blank Flange Inserted



A	REVISED PER AS-BUILT MARK UP	7/14/10	DSA	
B	ISSUED FOR APPROVAL			

PEREGRINE GROUP
1726 COLE BLVD
BLDG 22, SUITE 200
GOLDEN, CO 80401
303-670-9388

McDonald

CLIENT PROJECT NO.

PROJECT NO. 200404103

SCALE: NONE

BLACK HILLS EXPLORATION AND PRODUCTION, INC.
350 INDIANA STREET, SUITE 400
GOLDEN, CO 80401-5096

BLACK HILLS EXPLORATION AND PRODUCTION
ESPINOSA CANYON AMINE PLANT
FIGURE 3

B | ENV-2001 | 1 OF 1
~~~

Eric J. Barndt
Environmental Engineer
E-mail eric.barndt@blackhillscorp.com

1515 Wynkoop Street, Suite 500
Denver, CO 80202
P (303) 566-3446
F (303) 568-3252

May 27, 2010

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Below Grade Tank Replacement Report for TK-109
Espinosa Canyon Amine Plant (Discharge Permit GW-356)
Black Hills Midstream, LLC

Dear Mr. Leonard Lowe:

This Tank Replacement Report is being submitted for the replacement of a Below Grade Tank that was completed during the week May 3, 2010 at the Black Hills Midstream, LLC (Black Hills) Espinosa Canyon Amine Plant (Discharge Permit GW-356). The Below Grade Tank replacement follows email correspondence between Mr. Carl Chavez, with Oil Conservation District (OCD), and me, dated January 20, 27, and 2010 and February 18, 2010. My January 20 email provided details related to the discovery of waste lube oil detected in the annular space of a dual wall Below Grade Tank during a routine monthly plant inspection in January 2010 and our plans to address the circumstances. Mr. Chavez's January 27 email provided approval of our replacement plan.

At the time of discovery, it was determined that liquids in the tank remained within the annular space of the dual wall tank and had not migrated to surrounding soils. The tank is identified as TK-109, and the email exchanges established a plan for Black Hills to continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils until a replacement Below Grade Tank was ordered, fabricated and delivered to the facility. The original installation of this tank was approved by the Oil Conservation District (OCD).

In order to properly remove TK-109 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. Details related to the facility and Below Grade Tank that was replaced are as follows:

1. Location of Facility: Black Hills Espinosa Canyon Amine Plant, located approximately 16 miles southwest of Dulce in Rio Arriba County, NM.

2. Permit Number: This facility has been assigned New Mexico Energy, Minerals and Natural Resource Department (NMEMNR) Oil Conservation Division (OCD) Discharge Permit GW-356.

3. Details on Below Grade Tank Replaced:
   a. Tank Number: TK-109
   b. Tank Volume: 560 gallons
   c. Tank Material: Double Walled Steel: inner wall 3/16-inch A36 steel; outer wall protected by cathodic anodes.

d. Tank Leak Detection Method: Manually monitoring of leak detection gauges in annular space of a double walled tank system.
e. Material Routed to and Stored in Tank: Waste Lube Oil.
f. Replacement Procedures: Attachment 1 provides a detailed log of the process that was undertaken for the replacement of TK-109. Please note that the removal process log provided in Attachment 1 includes results details for the removal of two tanks that Black Hills excavated at the Espinosa Canyon Amine Plant on the same day (during the week of May 3) , including this tank (TK-109) and TK-101. A Removal and Replacement Report for TK-101 is being prepared and submitted to OCD in a separate correspondence. Attachment 1 also includes a simplified diagram of TK-109.

4. Reason for Tank Replacement: Waste lube oil was detected in the annular space of TK-109 during a routine monthly plant inspection in January 2010.

5. Measures Taken at Time of Discovery: At the time of discovery, it was determined that liquids in the tank remained within the annular space of the dual wall tank and had not migrated to surrounding soils. Black Hills continued to monitor and document the liquid level in the annular space and inspect the surrounding surface soils until the tank was replaced.

6. Tank Replacement Plan: Since discovering this circumstance Black Hills determined that the tank would need to be replaced so a new tank was ordered, fabricated, delivered to the facility. The old tank was excavated and removed and the new replacement tank was installed.

7. Verification of No Impacts to Surrounding Soils: In order to properly replace TK-109 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. If leakage to the soil had been detected, OCD would have been notified immediately, however no leakage was observed. Photographs of the tank and underlying soils were taken during this process to document the procedures and are included with this Tank Replacement Report as Attachment 2.

   In addition, soil samples were taken and sent to a laboratory for analysis. The soil sample analysis is included with this Tank Removal and Closure Report as Attachment 3. The soil sample analysis indicate 'Not Detected at the Reporting Limit' results for MBTEX and Gasoline and Diesel Range Organics in Soil. Please note that the analysis provided in Attachment 3 includes results for soil samples that were taken during the removal of two tanks that Black Hills excavated at the Espinosa Canyon Amine Plant on the same day (during the week of May 3). The analytical report for TK-109 should be reviewed relative to the removal and replacement of TK-109.

Black Hills is not required to prepare and submit the OCD Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application (Form C-144) for the replacement of TK-109 because the facility operates under a current OCD permit (Discharge Permit GW-356).

Please call me at (303) 566-3446 if you have any questions related to this Tank Replacement Report.

Sincerely,

Eric J. Barndt
Black Hills

cc: Brandon Powell, OCD; 1000 Rio Brazos Road; Aztec, New Mexico 87410
Fred Carl, Black Hills Energy, Inc.
Tim Mordhorst, Black Hills
Gary Stripling, Black Hills

Attachment 1 – Tank TK-109 Replacement Process Log (Black Hills Midstream Daily Report) and Simplified Diagram

5/10/2010

Black Hills Midstream

A Subsidiary of Black Hills Corporation
3200 N. 1st Street
P.O. Box 249
Bloomfield, NM 87413
Phone: (505) 634-1111 Fax: (505) 634-1116

Gary Stripling
Plant Supervisor
505-486-0314

TK-109 & TK-101 Tank Removal @ Espinosa Gas Plant

Review:

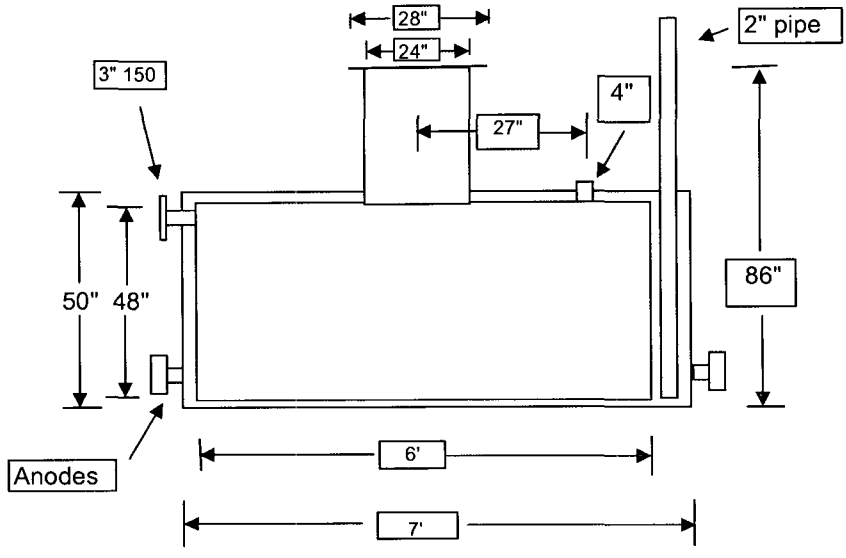
May 4, 2010 excavated TK-109 & half of TK-101 ground cover @ 9:00am by Polaris.

May 5, 2010 completed excavation on TK-101 and removed Tanks TK-101 & TK-109

May 6, 2010 pulled soil sample spot check and passed. Pulled primary samples to be sent off to lab for testing. Installing new tank for TK-109 setting and piping will test tomorrow.

May 7, 2010 ran nitrogen pressure test for leaks. Back fill TK-109 and TK-101 hole with fresh dirt.

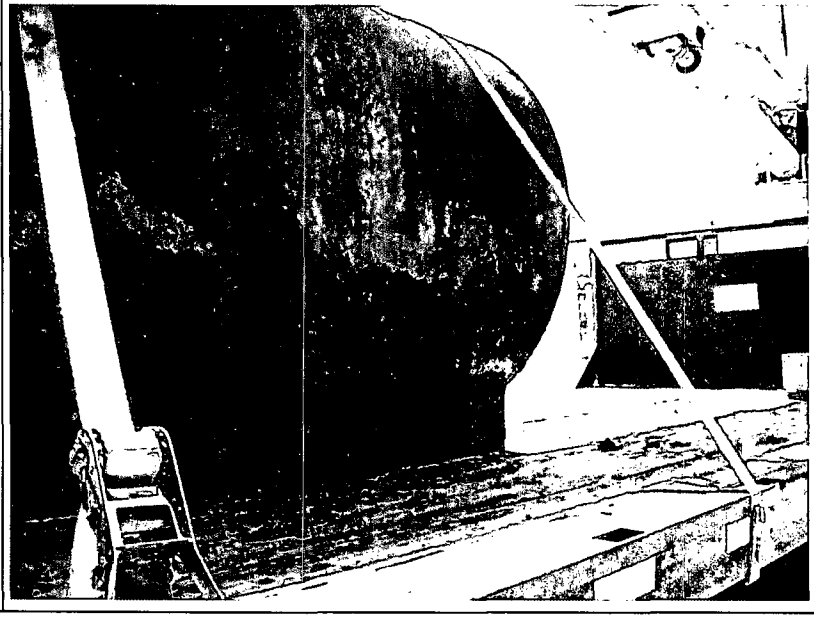
Black Hills Midstream
TK - 109 560 gal. Tank



Tank -109 receives and stores small amounts of lube oil waste produced by and drained from the natural gas compressor engines (C-101, C-201 and C-301) at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. The tank was removed and replaced due to the failure of the inner tank wall that consists of 3/16" A36 carbon steel. The orignal and replacement tanks both hold 560 gallons and are provided with anodes for outer wall protection. When the leak was detected the level in the tank was lowered below point of the leakage and monitored monthly with no signs of increase in the outer wall levels. On 5-5-10 TK-109 was removed with no signs of leakage under the tank or visually observed on the tank itself. Soil samples were taken and submitted to Inter-Mountain Laboratories for analysis. The tank was replaced with a new dual-walled tank.

Attachment 2 – Photographs of Tank Replaced (TK-109) and Surrounding Soils

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-109 Below Grade Tank Replacement Report
Photo No. **1** **Description:** Photo 1 of 2: 560 gallon Double Walled Below Grade Tank that was replaced (TK-109).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-109 Below Grade Tank Replacement Report
Photo No. **2** **Description:** Photo 2 of 2: 560 gallon Double Walled Below Grade Tank that was replaced (TK-109).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-109 Below Grade Tank Replacement Report
Photo No. **3** **Description:** Soil underlying location of 560 gallon Double Walled Below Grade Tank that was replaced (TK-109).	

Attachment 3 – Inter-Mountain Laboratories Soil Sample Analysis

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Project: Espinosa Pit 5610
Lab Order: O1005013

CASE NARRATIVE

Report ID: O1005013002
(Replaces O1005013001)

This data package consists of the following:
Case Narrative - 1 page
Sample Analysis Reports - 2 pages
Quality Control Reports - 7 pages
Inorganic Sample Analysis Reports - 2 pages
Copy of the Chain of Custody Record - 1 page
Condition Upon Receipt form - 1 page

Samples were analyzed for organic constituents using the methods outlined in the following references:

- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, United States Environmental Protection Agency (USEPA).

All method blanks, duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Data qualifiers are defined at the bottom of each page.

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street
PO Box 249
Bloomfield, NM 87413

Date Reported: 5/27/2010
Report ID: O1005013002
(Replaces O1005013001)

Project: Espinosa Pit 5610
Lab ID: O1005013-001
Client Sample ID: Tank TK-109
Matrix: Soil

Work Order: O1005013
Collection Date: 5/6/2010 9:45:00 AM
Date Received: 5/10/2010 9:40:00 AM
COC: 129545

Analyses	Result	RL	Limits	Qual	Units	Date Analyzed/Init	
8021B MBTEXN-Soil						**Prep Date: 5/10/2010**	
Benzene	ND	0.50			mg/Kg	05/11/2010	MAB
Toluene	ND	0.50			mg/Kg	05/11/2010	MAB
Ethylbenzene	ND	0.50			mg/Kg	05/11/2010	MAB
m,p-Xylenes	ND	1.0			mg/Kg	05/11/2010	MAB
o-Xylene	ND	0.50			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	122		69-141		%REC	05/11/2010	MAB
8015C Gasoline Range Organics-Soil						**Prep Date: 5/10/2010**	
Gasoline Range Organics (nC6-nC10)	ND	10			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	121		74-135		%REC	05/11/2010	MAB
8015C Diesel Range Organics-Soil						**Prep Date: 5/11/2010**	
Diesel Range Organics (nC10-nC32)	ND	25			mg/Kg	05/12/2010	UB
Surr: o-Terphenyl	78.2		37-132		%REC	05/12/2010	UB

These results apply only to the samples tested. **RL - Reporting Limit**

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Diluted out of recovery limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Effect
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Reviewed by: Ed Scruton

Ed Scruton, Analytical Chemist

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street
PO Box 249
Bloomfield, NM 87413

Date Reported: 5/27/2010
Report ID: O1005013002
(Replaces O1005013001)

Project: Espinosa Pit 5610
Lab ID: O1005013-002
Client Sample ID: Tank TK-101
Matrix: Soil

Work Order: O1005013
Collection Date: 5/6/2010 10:50:00 AM
Date Received: 5/10/2010 9:40:00 AM
COC: 129545

Analyses	Result	RL	Limits	Qual	Units	Date Analyzed/Init	
8021B MBTEXN-Soil						**Prep Date: 5/10/2010**	
Benzene	ND	0.50			mg/Kg	05/11/2010	MAB
Toluene	ND	0.50			mg/Kg	05/11/2010	MAB
Ethylbenzene	ND	0.50			mg/Kg	05/11/2010	MAB
m,p-Xylenes	ND	1.0			mg/Kg	05/11/2010	MAB
o-Xylene	ND	0.50			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	125		69-141		%REC	05/11/2010	MAB
8015C Gasoline Range Organics-Soil						**Prep Date: 5/10/2010**	
Gasoline Range Organics (nC6-nC10)	ND	10			mg/Kg	05/11/2010	MAB
Surr: 4-Bromofluorobenzene	125		74-135		%REC	05/11/2010	MAB
8015C Diesel Range Organics-Soil						**Prep Date: 5/11/2010**	
Diesel Range Organics (nC10-nC32)	ND	25			mg/Kg	05/12/2010	UB
Surr: o-Terphenyl	72.4		37-132		%REC	05/12/2010	UB

These results apply only to the samples tested. **RL - Reporting Limit**

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Diluted out of recovery limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Effect
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Reviewed by: Ed Scruton
Ed Scruton, Analytical Chemist

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8015C_DROS**

Sample ID: **MB-3995** SampType: **MBLK** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78520**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	ND	25									
Surr: o-Terphenyl					77.4	37	132				

Sample ID: **LCS-3995** SampType: **LCS** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78521**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	127.4	25	200		63.7	49	101				
Surr: o-Terphenyl					86.9	37	132				

Sample ID: **LCSD-3995** SampType: **LCSD** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **ZZZZZ** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78522**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	122.0	25	200	0	61	49	101	127.4	4.34	20	
Surr: o-Terphenyl				0	81	37	132	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: 8015C_DROS

Sample ID: **O1005013-001Bms** SampType: **MS** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **Tank TK-101** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78524**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	100.4	25	200	0	50.2	27	98	0	0		
Surr: o-Terphenyl				0	79.6	37	132	0	0		

Sample ID: **O1005013-001Bmsd** SampType: **MSD** TestCode: **8015C_DROS** Units: **mg/Kg** Prep Date: **5/11/2010** RunNo: **5374**
Client ID: **Tank TK-101** Batch ID: **3995** Analysis Date: **5/12/2010** SeqNo: **78525**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	106.6	25	200	0	53.3	27	98	100.4	5.97	20	
Surr: o-Terphenyl				0	79	37	132	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q (Replaces O1005013001Q)
TestCode: **8015C_GROS**

Sample ID: **MB-3993** SampType: **MBLK** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78372**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	ND	10									
Surr: 4-Bromofluorobenzene					132	74	135				

Sample ID: **LCS-3993** SampType: **LCS** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78373**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	92.21	10	90		102	76	124				
Surr: 4-Bromofluorobenzene					102	74	135				

Sample ID: **LCSD-3993** SampType: **LCSD** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78374**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	87.59	10	90	0	97.3	76	124	92.21	5.14	20	
Surr: 4-Bromofluorobenzene				0	99.2	74	135	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8015C_GROS**

Sample ID: **O1005009-010AMS** SampType: **MS** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78376**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	93.20	10	90	0	104	68	129	0	0		
Surr: 4-Bromofluorobenzene				0	103	74	135	0	0		

Sample ID: **O1005009-010AMSD** SampType: **MSD** TestCode: **8015C_GROS** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5367**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78377**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	86.84	10	90	0	96.5	68	129	93.2	7.08	20	
Surr: 4-Bromofluorobenzene				0	102	74	135	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q
(Replaces O1005013001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **MB-3993** SampType: **MBLK** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78362**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylenes	ND	1.5									
o-Xylene	ND	0.50									
Surr: 4-Bromofluorobenzene					131	69	141				

Sample ID: **LCS-3993** SampType: **LCS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78363**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.31	0.50	10		103	76	120				
Toluene	10.88	0.50	10		109	78	127				
Ethylbenzene	10.88	0.50	10		109	81	123				
m,p-Xylenes	22.06	1.5	20		110	84	125				
o-Xylene	10.42	0.50	10		104	86	128				
Surr: 4-Bromofluorobenzene					103	69	141				

Qualifiers:

- D Diluted out of recovery limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- M Matrix Effect
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q (Replaces O1005013001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **LCSD-3993** SampType: **LCSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78364**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.645	0.50	10	0	96.5	76	120	10.31	6.66	20	
Toluene	10.24	0.50	10	0	102	78	127	10.88	5.97	20	
Ethylbenzene	10.45	0.50	10	0	104	81	123	10.88	3.99	20	
m,p-Xylenes	21.18	1.5	20	0	106	84	125	22.06	4.07	20	
o-Xylene	10.04	0.50	10	0	100	86	128	10.42	3.72	20	
Surr: 4-Bromofluorobenzene				0	101	69	141	0	0	20	

Sample ID: **O1005009-010AMS** SampType: **MS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78366**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.60	0.50	10	0	106	69	114	0	0		
Toluene	11.15	0.50	10	0	112	69	123	0	0		
Ethylbenzene	11.24	0.50	10	0	112	68	125	0	0		
m,p-Xylenes	22.78	1.5	20	0	114	70	127	0	0		
o-Xylene	10.86	0.50	10	0	109	71	131	0	0		
Surr: 4-Bromofluorobenzene				0	105	69	141	0	0		

Qualifiers:
D Diluted out of recovery limit
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
M Matrix Effect
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 5/27/2010

CLIENT: Black Hills Gas Resources
Work Order: O1005013
Project: Espinosa Pit 5610

Report ID: O1005013002Q (Replaces O1005013001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **O1005009-010AMSD** SampType: **MSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/10/2010** RunNo: **5366**
Client ID: **ZZZZZ** Batch ID: **3993** Analysis Date: **5/11/2010** SeqNo: **78367**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.890	0.50	10	0	98.9	69	114	10.6	6.98	20	
Toluene	10.42	0.50	10	0	104	69	123	11.15	6.82	20	
Ethylbenzene	10.45	0.50	10	0	104	68	125	11.24	7.24	20	
m,p-Xylenes	21.20	1.5	20	0	106	70	127	22.78	7.16	20	
o-Xylene	9.985	0.50	10	0	99.8	71	131	10.86	8.44	20	
Surr: 4-Bromofluorobenzene				0	101	69	141	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Date Reported: 5/25/2010
Report ID: S1005120002
(Replaces S1005120001)
Work Order: S1005120
Collection Date: 5/6/2010 9:45:00 AM
Date Received: 5/10/2010
Sampler: dm
Matrix: Soil

Project: Espinosa Pit 5610
Lab ID: S1005120-001
Client Sample ID: Tank TK-109
COC: 129545

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Soil Anions						
Chloride	42.8	0.01		ppm	05/12/2010 000 KO	USDA 60-3a

These results apply only to the samples tested.

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL
O	Outside the Range of Dilutions

RL - Reporting Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
L	Analyzed by a contract laboratory
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Date Reported: 5/25/2010
Report ID: S1005120002
(Replaces S1005120001)
Work Order: S1005120
Collection Date: 5/6/2010 10:50:00 AM
Date Received: 5/10/2010
Sampler: dm
Matrix: Soil

Project: Espinosa Pit 5610
Lab ID: S1005120-002
Client Sample ID: Tank TK-101
COC: 129545

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Soil Anions						
Chloride	56.1	0.01		ppm	05/12/2010 000 KO	USDA 60-3a

These results apply only to the samples tested.

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL
O	Outside the Range of Dilutions

RL - Reporting Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
L	Analyzed by a contract laboratory
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

129545

*This is a **LEGAL DOCUMENT**. All shaded fields must be completed. See reverse for instructions.*

Client Name	**Project Identification**	**Sampler (Signature/Printed)** / **Telephone #**
Black Hills Gas Resources	Espinosa Pit 5610	Daniel Manus / Daniel Manus
Report Address	**Contact Name**	
3200 N 1st Street Bloomfield NM 87413	Daniel Manus	
	Email daniel.manus@blackhillscorp	
Invoice Address	Phone 505 634-1111 x 28	
Same as above	**Purchase Order #** / **Quote #**	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	BTEX 8021	DRO	TPH					REMARKS
1		5-6-10	945	Tank 00955	SL	3	X	X	X	X				
2		5-6-10	1050	Tank 00155	SL	3	X	X	X	X				
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

01005013

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Daniel Manus / Daniel Manus	5/6/10	16:00	Ed Scruton / Ed Scruton	05/14/10	0940

SHIPPPING INFO	MATRIX CODES		TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
☐ UPS	Water	WT	Check desired service	Compliance Monitoring? Y / N	
☒ Fed Express	Soil	SL	☐ Standard turnaround	Program (SDWA, NPDES,...) —	
☐ US Mail	Solid	SD	☒ **RUSH** - 5 Working Days	PWSID / Permit # —	
☐ Hand Carried	Trip Blank	TB	☐ **URGENT** - < 2 Working Days	Chlorinated? Y / N	
☐ Other _____	Other	OT	*Rush & Urgent Surcharges will be applied*	Sample Disposal: Lab X / Client	

RUSH

Inter-Mountain Laboratories, Inc., 1673 Terra Ave, Sheridan, WY 82801 ph: (307) 672-8945

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 1

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. Temps (°C): 16.5

Acceptable is 0.1 to 6°C. Also acceptable is 'Received on Ice" (ROI) for samples received on the same day as sampled or "Received at Room Temperature' (RRT) for samples received within one hour of sampling.

Client contact for temperature failures must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr?	Yes	No	(N/A)	
4 COC Number (If applicable): 129545				
5 Do the number of bottles agree with the COC?	(Yes)	No	N/A	
6 Were the samples received intact? *(no broken bottles, leaks, etc.)*	(Yes)	No	N/A	
7 Were the sample custody seals intact?	(Yes)	No	N/A	
8 Is the COC properly completed, legible, and signed?	(Yes)	No		

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate?	(Yes)	No		
2 Did the bottle labels correspond with the COC information?	(Yes)	No		
3 Samples collected in proper containers?	(Yes)	No		
4 Were all containers properly preserved?	Yes	No	(N/A)	Added at Lab
Client contact for preservation failures must be documented below.				
5 VOA vials have <6mm headspace?	Yes	No	(N/A)	
6 Were all analyses within holding time at the time of receipt?	(Yes)	No		
7 Have rush or project due dates been checked and accepted?	(Yes)	No	N/A	

Attach Lab ID labels to the containers and deliver to appropriate lab section. ***Set ID:*** 01005013

Sample Receipt, Verification, Login, Labeling & Distribution completed by *(initials)* : SB

Discrepancy Documentation *(use back of sheet for notes on discrepancies)*

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: Daniel Mannus — Telephone Number: email

Initiated By: Ed Scruton — Date/Time: 05/19/10 1000

Problem: out of temp

Resolution: Run samples

Person Contacted: _____ — Telephone Number: _____

Initiated By: _____ — Date/Time: _____

Problem:

Resolution:

Eric J. Barndt
Environmental Engineer
E-mail eric.barndt@blackhillscorp.com

1515 Wynkoop Street, Suite 500
Denver, CO 80202
P (303) 566-3446
F (303) 568-3252

May 25, 2010

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Notice of Responsible Official Change for Black Hills Midstream, LLC Espinosa Canyon Amine Plant (Discharge Permit GW-356)

Dear Mr. Lowe:

This correspondence is intended to inform you that the Responsible Official for the Black Hills Midstream, LLC Espinosa Canyon Amine Plant (operated under New Mexico Energy, Minerals and Natural Resource Department (NMEMNRD) Oil Conservation Division (OCD) Discharge Permit GW-356) has changed as follows:

Previously Assigned Responsible Official:
Timothy Hopkins, Black Hills Midstream, LLC Vice President and General Manager

Newly Assigned Official:
John Vering, Black Hills Exploration & Production, President and General Manager
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, Colorado 80202
Phone: 303-566-3391
Email: j.vering@blackhillscorp.com

This change is affective immediately. Please update all appropriate NMEMNRD OCD databases regarding this change.

Please call me at (303) 566-3446 if you have any questions concerning this change in Responsible Official.

Sincerely,

Eric J. Barndt
Black Hills

cc: Fred Carl, Black Hills
John Vering, Black Hills
Doran Newlin, Black Hills
Gary Stripling, Black Hills

Eric J. Barndt
Environmental Engineer
E-mail eric.barndt@blackhillscorp.com

1515 Wynkoop Street, Suite 500
Denver, CO 80202
P (303) 566-3446
F (303) 568-3252

May 11, 2010

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Carl Chavez
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Results of Underground Pipeline Integrity Testing
Espinosa Canyon Amine Plant (Discharge Permit GW-356)
Black Hills Midstream, LLC

Dear Mr. Chavez:

As required by Condition 10 or our Discharge Permit (GW-356) this correspondence is being submitted to provide the results of underground pipeline integrity testing completed during the week May 10, 2010 at the Black Hills Midstream, LLC (Black Hills) Espinosa Canyon Amine Plant. The testing follows email correspondence between you and me, dated April 28 and 29, 2010. My April 28 email provided details and attachments explaining the process and method to document the results of the required underground pipeline integrity testing. Your April 29 email response provided approval of our testing plan.

Condition 10 of GW-356 requires underground pipeline integrity testing every 5 years. As you know, on January 20, 2010 Black Hills submitted a renewal application for this permit, which expires on May 23, 2010. As the attached inspection log indicates, the testing was successfully performed on underground pipeline sections associated with two below grade tanks permitted under GW-356, identified as TK-102 and TK-109. As the results show, we were able to establish and hold approximately 5 psi nitrogen pressure on the each of these tank systems for at least 30 minutes, as required.

Existing GW-356, which expires on May 23, 2010, originally included four (4) below grade pipe systems associated with tanks TK-101, TK-102, TK-106 and TK-109. As the renewal application submitted on January 20, 2010 indicated, TK-106, a 500 gallon Condensate Drain Tank, was taken out of service and removed in 2009. This tank was not replaced and therefore was not included on Table 2, Tank List. As required a notice of tank removal and a Tank Removal Closure Report were submitted to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) on May 28 and June 24, 2009, respectively to properly close TK-106.

In addition, we recently discovered a leak in the inner wall of the dual-walled tank TK-101 (Glycol Drain Tank). We determined that we will NOT need to replace this tank, since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks. Details of circumstances associated with TK-101 were provided to the OCD in email exchanges between you and me dated April 28, 2010. Your April 28 email response provided approval of our removal plan. The tank was removed during the week of May 3 and a separate Tank Removal Closure Report is currently being prepared and will be submitted to OCD to close the tank.

Because TK-101 was removed and will not be replaced Black Hills did not perform underground pipeline integrity testing on this tank system. As you advised during recent phone conversations, with this correspondence Black Hills is also requesting that TK-101 be eliminated from the GW-356 renewal application.

Please call me at (303) 566-3446 if you have any questions related to the enclosed Underground Pipeline Integrity Testing Results.

Sincerely,

Eric J. Barndt
Black Hills

Enclosure - Underground Pipeline Integrity Testing Results

cc: Brandon Powell, OCD; 1000 Rio Brazos Road; Aztec, New Mexico 87410
Fred Carl, Black Hills
Tim Mordhorst, Black Hills
Gary Stripling, Black Hills

Espinosa Canyon Amine Plant
5-Year Underground Pipeline Testing Form
(file completed forms in Section 6)

Date 5-10-10 / Time 2:00pm

Tank	Underground Pipeline Segment	Segment Identification Number	Pipe Type	Schedule/ Rating	Rating/Class	Pipe Size (inche	Installation Date	Drawing Numbers	Underground Pipeline Inspection Date	Performed By:	Results (Pass/Fail)	Comments
Tank TK-102 (Amine Drain Tank)	Amine Overhead KO (V-103) to TK-102	2"-DR-2001-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001	5-10-10	[signature]	PASS	5# 30min.
		2"-DR-2000-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2		EC-2103				
	Amine Reboiler (R-101) to TK-102	2"-DR-2005-15D	arbon Steel (NAC	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2108	5-10-10	[signature]	PASS	5# 30min.
	Glycol Contactor (V-104) to TK-101	2"-DR-2002-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001	5-10-10	[signature]	PASS	5# 30min.
		2"-DR-2000-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2		EC-2104				
	Amine Still KO (V-107) to TK-102	2"-DR-2004-15D	arbon Steel (NAC	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2105	5-10-10	[signature]	PASS	5# 30min.
	TK-102 to Loadout Station	3"-DR-1014-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	2	2005	ENV-2001 EC-2108	5-10-10	[signature]	PASS	5# 30min.
Tank TK-109 (Compressor Waste Oil Drain Tank)	Compressor C-101 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2101	5-10-10	[signature]	PASS	4.9# 30min
	Compressor C-201 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2102	5-10-10	[signature]	PASS	4.9# 30min.
	Compressor C-301 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2102	5-10-10	[signature]	PASS	4.9# 30min.
	Common header to TK-109	3"-DR-1006-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	3	2005	ENV-2001 EC-2102	5-10-10	[signature]	PASS	4.9# 30min.
	TK-109 to Loadout Station	3"-DR-1016-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	2	2005	ENV-2001 EC-2102	ISOLATED BEFORE R-109			

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, April 28, 2010 3:16 PM
To: 'Barndt, Eric'; Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Approved as is, and if hydrocarbons were never stored in the tank, TPH testing would not be required and the operator shall use best professional judgment, i.e., soil and/or tank staining, olfactory senses, etc. to determine whether an ethylene glycol was released to the environment.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this plan does not relieve Black Hills Corporation of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Corporation of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 2:25 PM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl and Leonard-

I am providing this email to report the results of a tank inspection we conducted last week at our Black Hills Espinosa Canyon Amine Plant. During efforts to conduct preliminary underground pipeline integrity testing as required by our permit (GW-365), we discovered a leak in the inner wall of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-101 (Glycol Drain Tank). The leak was discovered when the system was pressurized with nitrogen gas while conducting preliminary underground pipeline integrity testing. As per previous recent communications with Mr. Chavez regarding underground pipeline integrity testing, there are no valves in the tank system between the process and the inlet to the below grade tank or between the tank outlet and the loadout station. Therefore when conducting the preliminary tests we pressurized the system with nitrogen from the process, through the below grade tank, and to the loadout station as one "pipe section". When the system was tested we were unable to maintain the pressure applied. Upon investigating the circumstances we discovered that the inner wall of the dual-walled tank was leaking. The leak was determined to be coming from the tank because the nitrogen gas could be heard audibly escaping into the annular space between the dual-walls through the access port.

Because this tank rarely receives liquids from the process it is suspected that the leak was not previously detected during the routine monthly inspections that we conduct to test for liquids in the annular space of all of our dual wall below-grade tanks. We have concluded that the leak in the tank went undetected because the liquid level in the tank never got high

enough to reach the point where the leak is located on the inner tank wall and therefore never drained into the annular space between the inner and outer walls. Due to these circumstances, the liquid has not passed from the inner wall into the annular space between it and the outer wall. This also means no liquid has not passed from the outer wall or to the surrounding and underlying soils. Final inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is removed (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of glycol waste produced by and drained from the natural gas compression process at the Espinosa Canyon Amine Plant. The glycol waste is stored in the below-grade tank (TK-101) temporarily, then the material in the tank is vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. As discussed above, while conducting preliminary underground pipeline integrity testing a leak in the inner wall of our dual wall below-grade tank was discovered and reported to me. As you know, this is the third time we have experienced leaks from below grade tanks, and per previous similar circumstances we have reviewed the site inspection procedures, the Permit and State regulations. This review revealed that, although not directly applicable to us since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, we found no requirements to contact the State or OCD, since no spill has occurred. However, per previous similar circumstances, I am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. We have determined that we will NOT need to replace this tank, since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for total petroleum hydrocarbons [TPH] using EPA Method 418.1).
6. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention that will include photographs of the tank removal process and soil samples analysis (see items 4 and 5 above).
7. Notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
8. Determine how the removal of this tank will impact the Discharge Plan Renewal Application that Black Hills submitted to OCD on January 20, 2010 (to Mr. Lowe's attention). The Discharge Plan Renewal Application includes TK-101 (Glycol Drain Tank), however as discussed above, we do not plan to replace the tank once it has been removed. Therefore we will need to remove that tank from the Renewal Application and the Permit when it is reissued by OCD. I will call Mr. Chaves to discuss this matter and determine a course of action to remove TK-101 (Glycol Drain Tank) from the Renewal Application and the Permit.
9. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion. Our anticipated timeline for these activities are as follows:
    a. Tank removed within next approximately 2 weeks (May 7).

b. Photograph the tank removal process (including the tank and underlying soils) within next approximately 3 weeks (May 14).
c. Samples underlying soils and any other areas of suspected contamination and analysis (for TPH) within next approximately 8 weeks (June 18).
d. Prepare and submit a Below-Grade Tank Removal Closure Report within next approximately 10 weeks (July 2).

10. We will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank. At this time we are scheduled to remove TK-101 and TK-109 (which we formerly notified you of) beginning next Monday. We anticipate 2 to 3 days of work to excavate and remove the two tanks, so work is expected to begin on Monday, May 3 and conclude on Wednesday, May 5, 2010.

With submission of this email I am also requesting that one of you provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
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Denver, CO 80202
eric.barndt@blackhillscorp.com
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Mobile Phone: 303-775-9622

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, April 29, 2010 8:13 AM
To: 'Barndt, Eric'
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

No, you state immediately contact NMED, but it is the OCD Environmental Bureau that is the primary contact for oil and gas facilities in New Mexico.

Let me know if you need the link to the WQCC Delegation of Authority for 20.6.2 NMAC and 20.6.4 NMAC. OCD also has regulations for above ground tanks and below grade tanks under its "Rules" link on the web. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Thursday, April 29, 2010 8:06 AM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Thanks again Carl. One question – Step I of the procedure states the following:

> Step I: If the retest is a fail, document as a failed test on the 5-Year Underground Pipeline Testing Form and contact the Environmental Department immediately so they can notify the New Mexico Energy, Minerals and Natural Resources Department OCD within the required 72 hours. Additional investigations to determine where the line is leaking will need to be conducted.

I think that generally constitutes the condition you mentioned below in your email (i.e., OCD should be the primary contact for release at OCD facilities under WQCC Regulations and our delegated authority by WQCC to oversee the protection of surface and ground water at oil, gas and geothermal facilities in NM). Would you suggest that Step I be revised in the procedure to better clarify? If so, would you mind editing Step I as presented above to more accurately represent the circumstances? Call me if easier to discuss on the phone. Thanks,

-- Eric J. Barndt --
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From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 29, 2010 7:32 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Approved with the following condition:

1) OCD should be the primary contact for release at OCD facilities under WQCC Regulations and our delegated authority by WQCC to oversee the protection of surface and ground water at oil, gas and geothermal facilities in NM.

One comment on nitrogen gas is in our UIC program, we introduce nitrogen gas at formation temperature. Similarly for temperature conditions during MITs, if it is possible to introduce nitrogen gas at pipe temperature, the stabilization may occur sooner. The operator should continue to experiment with the procedure that is most efficient for your field operations and if introducing cold nitrogen gas into hot lines stabilizes quickly and is most efficient, OCD does not want to hinder the operators ability to implement its field procedures that meet the conditions of the discharge permit.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve Black Hills Corporation of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Black Hills Corporation of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
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Oil Conservation Division, Environmental Bureau
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Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 2:36 PM
To: Chavez, Carl J, EMNRD; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl-

Please find the attached procedure and log we plan to use for integrity testing the underground pipelines at the Black Hills Espinosa Canyon Amine Plant as required by Condition 10 of our permit (Permit GW-356). Please review the attached documents and approve them so we can proceed with the required testing. If revisions are needed please call or email me to discuss.

The facility did some experimenting last week using the attached procedure and got good results testing pipe systems on the TK-102 Amine Drain Tank system (i.e., we were able to establish and hold 5 psi nitrogen pressure on the system for 30 minutes as required). Therefore we feel confident that the attached procedure adequately meets the permit conditions and that, through testing using the procedure, we will be able to confirm the integrity of the underground pipelines at the facility.

As you know through other recent correspondence, we are in the process of removing and replacing one of the tanks that is included in our permit, TK-109 (lube oil waste tank). Per the schedule previously submitted to OCD regarding TK-109 removal and replacement, we expect to excavate and remove TK-109 next week. We plan to conduct the underground pipeline integrity testing on the pipes leading to and from that tank after it has been removed and prior to installing the replacement tank. We expect to have the underground pipelines associated with TK-102 and TK-109 completed prior to the May 23, 2010 permit deadline. If there are delays in the schedule we will inform you of them as soon as possible and

request additional time to conduct the underground pipeline integrity testing. As required, we will also notify you (OCD) at least 72 hours prior to conducting any and all underground pipeline integrity testing.

Finally, per the email related to TK-101 (Glycol Drain Tank) that was sent to you earlier today informing you that we discovered a leak in the inner wall of another dual wall below-grade tank, TK-101, that tank is not included in the attached underground pipeline integrity procedure and log. That tank system it is not included in the procedure or log because we determined that we will NOT need to replace the tank (since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks) and therefore testing of this system will not be required. As noted in the email sent earlier today, we will need to determine how the removal of this tank will impact the Discharge Plan Renewal Application that Black Hills submitted to OCD on January 20, 2010 (to Mr. Lowe's attention). The Discharge Plan Renewal Application includes TK-101 (Glycol Drain Tank), however we do not plan to replace the tank once it is removed. Therefore we will need to remove that tank from the Renewal Application and the Permit when it is reissued by OCD. I plan to call you to discuss this matter and determine a course of action to remove TK-101 (Glycol Drain Tank) from the Renewal Application and the Permit.

Please contact me with any questions. Also, please be sure to reply to this email to approve the attached underground pipeline integrity procedure and log so we can proceed with the required testing, or if revisions are needed please call or email me to discuss. Thank you,

-- Eric J. Barndt --
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Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, January 28, 2010 5:52 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Please find below some updated language on testing of process lines, etc. I think this language is more current than the language in your current permit and I hope it helps you to conceptualize the integrity testing of process lines better. OCD will review proposals for other MIT methods, but we look for some degree of credibility in the form of a reference to a professional guidebook, i.e., ASTM, API, DOT, etc. Thank you.

Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

Carl J. Chavez, CHMM
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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1
- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.
- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.
- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
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eric.barndt@blackhillscorp.com

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From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe.

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
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Office: 505-476-3492
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E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Leonard-

To follow the message I just left on your office phone I am providing this email due to the results of our Below-Grade Tank inspection conducted this week at our Black Hills Espinosa Canyon Amine Plant. During the routine monthly inspection, we detected liquid in the annular space of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-109. The liquid has not, and will not to the best of our ability, reach the soil. Final inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is replaced (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of lube oil waste produced by and drain from the natural gas compressor engines at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. During the routine inspection this week, liquid was detected and report to me. I reviewed the site inspection procedure, the Permit and State regulations. Although not directly applicable to us, since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. Order a direct replacement (same size, shape and design) below-grade tank. The original tank installation was approved by OCD. Note: Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for Gasoline and Diesel Range Organics in Soil).
6. Install the new below-grade tank. As noted above, Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
7. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention, that will include photographs of the tank removal process and soil samples analysis (see items 3 and 4 above).
8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and identical below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
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eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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Underground Tank Inspection
Espinosa Canyon Amine Plant

Underground Pipeline Testing is required every 5-years by OCD. Main purpose is to determine if leakage is present in the pipelines that lead from process equipment to the following underground tanks or from the underground tanks to the associated loadout stations. Inert Nitrogen gas will be used to test the pipelines.

TK – 102
TK – 109

Important Initial Steps for All Pipeline Testing:

- Notify the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) **at least 72 hours before conducting any Pipeline Testing** (call OCD general number at 505-476-3440; Carl J. Chavez at 505-476-3490; Leonard Lowe at 505-476-3492; or Brandon Powell at 505-334-6178 Ext 15/Mobile 505-320-0200).
- Attempt to cool the Nitrogen gas cylinder that will be used for testing. If testing will be conducted in colder winter months, keeping the cylinder in a shaded area out of direct sunlight should be sufficient. If testing will occur during warmer months (late spring, summer or early fall) the cylinder should be refrigerated or iced to lower the temperature of the gas that will be used for testing.

For TK-102

Step 1
Close the vent valve from TK-102 to the Acid Gas Thermal Oxidizer (TO-101) header.

Step 2
Close the drain valve under the Glycol Contactor (V-104). Loosen the flange connection at the drain valve under the Glycol Contactor (V-104) and leave flange bolts loose to allow air and VOCs to be purged (see Step B, under the All Tanks Section below).

Step 3
Close the drain valve under the Amine Overhead KO (V-103). Loosen the flange connection at the drain valve under the Amine Overhead KO (V-103) and leave flange bolts loose to allow air and VOCs to be purged (see Step B, under the All Tanks Section below).

Step 4
Close the drain valve under the Amine Reboiler (R-101). Loosen the flange connection at the drain valve under the Amine Reboiler (R-101) and leave flange bolts loose to allow air and VOCs to be purged (see Step B, under the All Tanks Section below).

Step 5
Close the drain valve under the Amine Still KO (V-107). Loosen the flange connection at the drain valve under the Amine Still KO (V-107) and leave flange bolts loose to allow air and VOCs to be purged (see Step B, under the All Tanks Section below).

Step 6
Attach the pressure gauge/meter directly to outlet of the 3" valve at the Waste Amine Truck Unloading Station, using pipe nipples, expanders or reducers as needed to connect the pressure gauge/meter to valve outlet. Use pipe dope or Teflon tape to ensure a proper seal and prevent leaks from any connectors used to attach the pressure gauge/meter.

Step 7
Follow Steps A through I (as appropriate) under the All Tanks Section below to complete and document the results of the testing.

For TK-109
Step 1
Break oil drain line connection at the drain valve under Compressor Engines C-101, C-102 and C-103. Plug drain lines on compressors with bleeder valve to each.

Step 2
Attach the pressure gauge/meter directly to outlet of the 3" valve at the Waste Oil Truck Unloading Station, using pipe nipples, expanders or reducers as needed to connect the pressure gauge/meter to valve outlet. Use pipe dope or Teflon tape to ensure a proper seal and prevent leaks from any connectors used to attach the pressure gauge/meter.

Step 3
Follow Steps A through I (as appropriate) under the All Tanks Section below to complete and document the results of the testing.

For All Tanks
Step A
With the pressure gauge/meter attached directly to the outlet of the 3" valve at the: (1) Waste Amine Truck Unloading Station for lines associated with TK-102; or (2) Waste Oil Truck Unloading Station for lines associated with TK-109 attach a pressure regulator to the Nitrogen gas cylinder to step the pressure down. Then attach the flex tubing to the pressure regulator on the Nitrogen gas cylinder and connect it to the pressure gauge/meter. Ensure that all attachments are properly sealed, tight and secured to prevent leaks. Use pipe dope or Teflon tape to ensure leaks do not exist or occur.

Step B
Slowly begin to open the valve on the Nitrogen cylinder. Gas will begin to fill the pipelines from the pressure gauge/meter to all other loosened flanges and the tank in the system (for TK-102) and the bleeder valves inserted with the plugs at Compressor Engines C-101, C-102 and C-103 drain valves (for TK-109). After all air and VOCs are purged from the system tighten flanges where flange bolts were loosened, duct tape around flange to insure proper seal and ensure that KO drain valves are closed.

Step C
Monitor the pressure gauge/meter as the lines and tank fill with Nitrogen gas. When the gauge/meter reaches 5.0 pounds per square inch (psi) shut the valve on the Nitrogen cylinder.

Step D
Allow at least a 10 minute time period for the pressure to stabilize before starting the 30 minute test period, as the pressure may increasing due to warming of the chilled nitrogen. If the pressure increases above 3.0 psi, bleed the system to again reach 5.0 psi. If the pressure drops below 5.0 psi, slowly open the valve on the Nitrogen gas cylinder until the pressure increases to 5.0 psi. If adjustments are needed repeat the 10 minute stabilization time process.

Step E
The pressure must be maintained in the system at 5.0 psi for 30 minutes with not more than 1% loss/gain in pressure. Once the pressure is stabilized begin a 30 minute clock and monitor the pressure until the end of the test period.

Step F
The pressure gauge/meter provides a digital readout, so if during the 30 minute test period the pressure remains between 4.95 and 3.05 psi the test is considered a pass. If the pressure gauge/meter reads out to greater than a 100^{th} (two decimal places) round values up or down to the nearest 100^{th} (i.e., 3.XX). If the pressure climbs to greater than 3.05 or drops to less than 2.95 during the 30 minute test period the test is considered a fail.

Step G
If the test is a pass document the results on the 5-Year Underground Pipeline Testing Form by filling out the columns for the following:

- Underground Pipeline Inspection Date
- Performed By (enter your name)
- Results (Pass/Fail)
- Relevant Comments

Step H
If the test is a fail, inspect all locations where lines were broken to insert blank flanges and the connection of the flex tubing from the Nitrogen gas cylinder to the pressure gauge/meter for leaks. If leaks are found tighten flanges, reapply silicon, caulk or take other actions to eliminate leaks. Retest the system following Steps B through F. If the retest passes document the results on the 5-Year Underground Pipeline Testing Form as detailed in Step G.

Step I
If the retest is a fail, document as a failed test on the 5-Year Underground Pipeline Testing Form and contact the Environmental Department immediately so they can notify the New Mexico Energy, Minerals and Natural Resources Department OCD within the required 72 hours. Additional investigations to determine where the line is leaking will need to be conducted.

Espinosa Canyon Amine Plant

5-Year Underground Pipeline Testing Form

(file completed forms in Section 6)

Note: Permit Condition 10 requires that all undergound process/wastewater pipelines be tested to demonstrate their mechanical integrity every 5 years. This testing is required for each pipeline leading to and from Underground Tanks TK-102 (Amine) and TK-109 (Compressor Waste Oil). OCD requirements also stipulate schematic diagrams showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. Drawing Number ENV-2001 (prepared by Perigrine Group) shows all drains, vents, risers, valves, piping, and approximate location. This spreadsheet contains the remainder of the required infor wastewater lines. Each line has been assigned an identification number and drawing reference(s). This spreadsheet will also be used to document test dates, test methods, pass/fail/repair information with signatures, and investigation results if applic

Tank	Underground Pipeline Segment	Segment Identification Number	Pipe Type	Schedule/ Rating	Rating/Class	Pipe Size (inches)	Installation Date	Drawing Numbers	Underground Pipeline Inspection Date	Perforn
Tank TK-102 (Amine Drain Tank)	Amine Overhead KO (V-103) to TK-102	2"-DR-2001-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001		
		2"-DR-2000-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2		EC-2103		
	Amine Reboiler (R-101) to TK-102	2"-DR-2005-15D	Carbon Steel (NACE)	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2108		
	Glycol Contactor (V-104) to TK-101	2"-DR-2002-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001		
		2"-DR-2000-15A	Carbon Steel	Schedule 80	150#, ASME B16.5	2		EC-2104		
	Amine Still KO (V-107) to TK-102	2"-DR-2004-15D	Carbon Steel (NACE)	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2105		
	TK-102 to Loadout Station	3"-DR-1014-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	2	2005	ENV-2001 EC-2108		
Tank TK-109 (Compressor Waste Oil Drain Tank)	Compressor C-101 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2101		
	Compressor C-201 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2102		
	Compressor C-301 to Common Header	2"B-15A (Valve)	Carbon Steel	Schedule 80	150#, ASME B16.5	2	2005	ENV-2001 EC-2102		
	Common header to TK-109	3"-DR-1006-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	3	2005	ENV-2001 EC-2102		
	TK-109 to Loadout Station	3"-DR-1016-15A	Carbon Steel	Schedule 40	150#, ASME B16.5	2	2005	ENV-2001 EC-2102		

that we are required to maintain underground process and wastewater pipeline
mation (pipe type, rating, size and date installed) for all underground process and
:able.

ıed By:	Results (Pass/Fail)	Comments

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, April 29, 2010 7:32 AM
To: 'Barndt, Eric'; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Approved with the following condition:

1) OCD should be the primary contact for release at OCD facilities under WQCC Regulations and our delegated authority by WQCC to oversee the protection of surface and ground water at oil, gas and geothermal facilities in NM.

One comment on nitrogen gas is in our UIC program, we introduce nitrogen gas at formation temperature. Similarly for temperature conditions during MITs, if it is possible to introduce nitrogen gas at pipe temperature, the stabilization may occur sooner. The operator should continue to experiment with the procedure that is most efficient for your field operations and if introducing cold nitrogen gas into hot lines stabilizes quickly and is most efficient, OCD does not want to hinder the operators ability to implement its field procedures that meet the conditions of the discharge permit.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve Black Hills Corporation of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Black Hills Corporation of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 2:36 PM
To: Chavez, Carl J, EMNRD; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl-

Please find the attached procedure and log we plan to use for integrity testing the underground pipelines at the Black Hills Espinosa Canyon Amine Plant as required by Condition 10 of our permit (Permit GW-356). Please review the attached documents and approve them so we can proceed with the required testing. If revisions are needed please call or email me to discuss.

The facility did some experimenting last week using the attached procedure and got good results testing pipe systems on the TK-102 Amine Drain Tank system (i.e., we were able to establish and hold 5 psi nitrogen pressure on the system for 30 minutes as required). Therefore we feel confident that the attached procedure adequately meets the permit conditions

and that, through testing using the procedure, we will be able to confirm the integrity of the underground pipelines at the facility.

As you know through other recent correspondence, we are in the process of removing and replacing one of the tanks that is included in our permit, TK-109 (lube oil waste tank). Per the schedule previously submitted to OCD regarding TK-109 removal and replacement, we expect to excavate and remove TK-109 next week. We plan to conduct the underground pipeline integrity testing on the pipes leading to and from that tank after it has been removed and prior to installing the replacement tank. We expect to have the underground pipelines associated with TK-102 and TK-109 completed prior to the May 23, 2010 permit deadline. If there are delays in the schedule we will inform you of them as soon as possible and request additional time to conduct the underground pipeline integrity testing. As required, we will also notify you (OCD) at least 72 hours prior to conducting any and all underground pipeline integrity testing.

Finally, per the email related to TK-101 (Glycol Drain Tank) that was sent to you earlier today informing you that we discovered a leak in the inner wall of another dual wall below-grade tank, TK-101, that tank is not included in the attached underground pipeline integrity procedure and log. That tank system it is not included in the procedure or log because we determined that we will NOT need to replace the tank (since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks) and therefore testing of this system will not be required. As noted in the email sent earlier today, we will need to determine how the removal of this tank will impact the Discharge Plan Renewal Application that Black Hills submitted to OCD on January 20, 2010 (to Mr. Lowe's attention). The Discharge Plan Renewal Application includes TK-101 (Glycol Drain Tank), however we do not plan to replace the tank once it is removed. Therefore we will need to remove that tank from the Renewal Application and the Permit when it is reissued by OCD. I plan to call you to discuss this matter and determine a course of action to remove TK-101 (Glycol Drain Tank) from the Renewal Application and the Permit.

Please contact me with any questions. Also, please be sure to reply to this email to approve the attached underground pipeline integrity procedure and log so we can proceed with the required testing, or if revisions are needed please call or email me to discuss. Thank you,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, January 28, 2010 5:52 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Please find below some updated language on testing of process lines, etc. I think this language is more current than the language in your current permit and I hope it helps you to conceptualize the integrity testing of process lines better. OCD will review proposals for other MIT methods, but we look for some degree of credibility in the form of a reference to a professional guidebook, i.e., ASTM, API, DOT, etc. Thank you.

Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch

greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1
- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.
- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.
- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Leonard-

To follow the message I just left on your office phone I am providing this email due to the results of our Below-Grade Tank inspection conducted this week at our Black Hills Espinosa Canyon Amine Plant. During the routine monthly inspection, we detected liquid in the annular space of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-109. The liquid has not, and will not to the best of our ability, reach the soil. Final inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is replaced (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of lube oil waste produced by and drain from the natural gas compressor engines at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between

inner and outer tank shells: an indication of inner tank integrity. During the routine inspection this week, liquid was detected and report to me. I reviewed the site inspection procedure, the Permit and State regulations. Although not directly applicable to us, since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. Order a direct replacement (same size, shape and design) below-grade tank. The original tank installation was approved by OCD. Note: Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for Gasoline and Diesel Range Organics in Soil).
6. Install the new below-grade tank. As noted above, Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
7. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention, that will include photographs of the tank removal process and soil samples analysis (see items 3 and 4 above).
8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and identical below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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Chavez, Carl J, EMNRD

From: Barndt, Eric [Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 3:29 PM
To: Chavez, Carl J, EMNRD; Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Great – thanks Carl. We will proceed per your input. As mentioned on the phone, the Espinosa Canyon Amine Plant site contact is Gary Stripling and his contact information is as follows:

- Email: Gary.Stripling@blackhillscorp.com
- Office Phone: 505-634-111 Ext. 23
- Mobile Phone: 505-486-0314

As we discussed, if you or Brandon plan to visit the site during the tank removal activities planned for next week (scheduled for Monday, May 3 to Wednesday, May 5, 2010) please contact Gary. Gary is also the contact for the pipeline integrity testing that we anticipate doing sometime late next week or early the following week (week of May 10). As required, we will call or email you and Brandon at least 72 hours before conducting that testing.

Thanks again for your support. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, April 28, 2010 3:16 PM
To: Barndt, Eric; Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Approved as is, and if hydrocarbons were never stored in the tank, TPH testing would not be required and the operator shall use best professional judgment, i.e., soil and/or tank staining, olfactory senses, etc. to determine whether an ethylene glycol was released to the environment.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this plan does not relieve Black Hills Corporation of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Corporation of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490

Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 2:25 PM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl and Leonard-

I am providing this email to report the results of a tank inspection we conducted last week at our Black Hills Espinosa Canyon Amine Plant. During efforts to conduct preliminary underground pipeline integrity testing as required by our permit (GW-365), we discovered a leak in the inner wall of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-101 (Glycol Drain Tank). The leak was discovered when the system was pressurized with nitrogen gas while conducting preliminary underground pipeline integrity testing. As per previous recent communications with Mr. Chavez regarding underground pipeline integrity testing, there are no valves in the tank system between the process and the inlet to the below grade tank or between the tank outlet and the loadout station. Therefore when conducting the preliminary tests we pressurized the system with nitrogen from the process, through the below grade tank, and to the loadout station as one "pipe section". When the system was tested we were unable to maintain the pressure applied. Upon investigating the circumstances we discovered that the inner wall of the dual-walled tank was leaking. The leak was determined to be coming from the tank because the nitrogen gas could be heard audibly escaping into the annular space between the dual-walls through the access port.

Because this tank rarely receives liquids from the process it is suspected that the leak was not previously detected during the routine monthly inspections that we conduct to test for liquids in the annular space of all of our dual wall below-grade tanks. We have concluded that the leak in the tank went undetected because the liquid level in the tank never got high enough to reach the point where the leak is located on the inner tank wall and therefore never drained into the annular space between the inner and outer walls. Due to these circumstances, the liquid has not passed from the inner wall into the annular space between it and the outer wall. This also means no liquid has not passed from the outer wall or to the surrounding and underlying soils. Final inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is removed (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of glycol waste produced by and drained from the natural gas compression process at the Espinosa Canyon Amine Plant. The glycol waste is stored in the below-grade tank (TK-101) temporarily, then the material in the tank is vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. As discussed above, while conducting preliminary underground pipeline integrity testing a leak in the inner wall of our dual wall below-grade tank was discovered and reported to me. As you know, this is the third time we have experienced leaks from below grade tanks, and per previous similar circumstances we have reviewed the site inspection procedures, the Permit and State regulations. This review revealed that, although not directly applicable to us since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, we found no requirements to contact the State or OCD, since no spill has occurred. However, per previous similar circumstances, I am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. We have determined that we will NOT need to replace this tank, since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for total petroleum hydrocarbons [TPH] using EPA Method 418.1).
6. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention that will include photographs of the tank removal process and soil samples analysis (see items 4 and 5 above).
7. Notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
8. Determine how the removal of this tank will impact the Discharge Plan Renewal Application that Black Hills submitted to OCD on January 20, 2010 (to Mr. Lowe's attention). The Discharge Plan Renewal Application includes TK-101 (Glycol Drain Tank), however as discussed above, we do not plan to replace the tank once it has been removed. Therefore we will need to remove that tank from the Renewal Application and the Permit when it is reissued by OCD. I will call Mr. Chaves to discuss this matter and determine a course of action to remove TK-101 (Glycol Drain Tank) from the Renewal Application and the Permit.
9. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion. Our anticipated timeline for these activities are as follows:
    a. Tank removed within next approximately 2 weeks (May 7).
    b. Photograph the tank removal process (including the tank and underlying soils) within next approximately 3 weeks (May 14).
    c. Samples underlying soils and any other areas of suspected contamination and analysis (for TPH) within next approximately 8 weeks (June 18).
    d. Prepare and submit a Below-Grade Tank Removal Closure Report within next approximately 10 weeks (July 2).
10. We will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank. At this time we are scheduled to remove TK-101 and TK-109 (which we formerly notified you of) beginning next Monday. We anticipate 2 to 3 days of work to excavate and remove the two tanks, so work is expected to begin on Monday, May 3 and conclude on Wednesday, May 5, 2010.

With submission of this email I am also requesting that one of you provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, April 28, 2010 3:16 PM
To: 'Barndt, Eric'; Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Approved as is, and if hydrocarbons were never stored in the tank, TPH testing would not be required and the operator shall use best professional judgment, i.e., soil and/or tank staining, olfactory senses, etc. to determine whether an ethylene glycol was released to the environment.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this plan does not relieve Black Hills Corporation of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Corporation of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, April 28, 2010 2:25 PM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD
Cc: Powell, Brandon, EMNRD; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred; Mordhorst, Tim
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl and Leonard-

I am providing this email to report the results of a tank inspection we conducted last week at our Black Hills Espinosa Canyon Amine Plant. During efforts to conduct preliminary underground pipeline integrity testing as required by our permit (GW-365), we discovered a leak in the inner wall of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-101 (Glycol Drain Tank). The leak was discovered when the system was pressurized with nitrogen gas while conducting preliminary underground pipeline integrity testing. As per previous recent communications with Mr. Chavez regarding underground pipeline integrity testing, there are no valves in the tank system between the process and the inlet to the below grade tank or between the tank outlet and the loadout station. Therefore when conducting the preliminary tests we pressurized the system with nitrogen from the process, through the below grade tank, and to the loadout station as one "pipe section". When the system was tested we were unable to maintain the pressure applied. Upon investigating the circumstances we discovered that the inner wall of the dual-walled tank was leaking. The leak was determined to be coming from the tank because the nitrogen gas could be heard audibly escaping into the annular space between the dual-walls through the access port.

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enough to reach the point where the leak is located on the inner tank wall and therefore never drained into the annular space between the inner and outer walls. Due to these circumstances, the liquid has not passed from the inner wall into the annular space between it and the outer wall. This also means no liquid has not passed from the outer wall or to the surrounding and underlying soils. Final inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is removed (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of glycol waste produced by and drained from the natural gas compression process at the Espinosa Canyon Amine Plant. The glycol waste is stored in the below-grade tank (TK-101) temporarily, then the material in the tank is vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. As discussed above, while conducting preliminary underground pipeline integrity testing a leak in the inner wall of our dual wall below-grade tank was discovered and reported to me. As you know, this is the third time we have experienced leaks from below grade tanks, and per previous similar circumstances we have reviewed the site inspection procedures, the Permit and State regulations. This review revealed that, although not directly applicable to us since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, we found no requirements to contact the State or OCD, since no spill has occurred. However, per previous similar circumstances, I am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. We have determined that we will NOT need to replace this tank, since it formerly received vey limited amounts of glycol liquid wastes from the process and we will be able to reroute the material to above ground liquid storage tanks.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for total petroleum hydrocarbons [TPH] using EPA Method 418.1).
6. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention that will include photographs of the tank removal process and soil samples analysis (see items 4 and 5 above).
7. Notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
8. Determine how the removal of this tank will impact the Discharge Plan Renewal Application that Black Hills submitted to OCD on January 20, 2010 (to Mr. Lowe's attention). The Discharge Plan Renewal Application includes TK-101 (Glycol Drain Tank), however as discussed above, we do not plan to replace the tank once it has been removed. Therefore we will need to remove that tank from the Renewal Application and the Permit when it is reissued by OCD. I will call Mr. Chaves to discuss this matter and determine a course of action to remove TK-101 (Glycol Drain Tank) from the Renewal Application and the Permit.
9. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion. Our anticipated timeline for these activities are as follows:
    a. Tank removed within next approximately 2 weeks (May 7).

b. Photograph the tank removal process (including the tank and underlying soils) within next approximately 3 weeks (May 14).
c. Samples underlying soils and any other areas of suspected contamination and analysis (for TPH) within next approximately 8 weeks (June 18).
d. Prepare and submit a Below-Grade Tank Removal Closure Report within next approximately 10 weeks (July 2).

10. We will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank. At this time we are scheduled to remove TK-101 and TK-109 (which we formerly notified you of) beginning next Monday. We anticipate 2 to 3 days of work to excavate and remove the two tanks, so work is expected to begin on Monday, May 3 and conclude on Wednesday, May 5, 2010.

With submission of this email I am also requesting that one of you provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

Chavez, Carl J, EMNRD

From: Barndt, Eric [Eric.Barndt@blackhillscorp.com]
Sent: Thursday, April 08, 2010 9:34 AM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

I know. We may have to do that. We are replacing one of the tanks as discussed in my original email (dated January 20, 2010) below. We plan to install isolation valves on the inlet and outlet of the replacement tank when it is installed. But we may also need to install them in the two other below grade tank systems to get the testing done properly.

-- Eric J. Barndt --
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eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 08, 2010 9:28 AM
To: Barndt, Eric
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Or you could install valves that would allow you to isolate just the lines. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Thursday, April 08, 2010 8:41 AM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Yes – exactly. One of the challenges we are facing, however, is that there are no valves in the system between the process and the inlet to the below grade tanks or between the tank outlet leading to the loadout stations. So we can't just isolate the underground pipe sections to test just them. Therefore, we are anticipating testing the whole systems from the process, through the below grade tanks, and to the loadout stations as one "pipe section". That is why we want to use nitrogen instead of water (using water would generate approximately 600 gallons of waste we'd need to deal with from each of the 3 systems we need to test). Let me know if that makes anything jump out at you. Thanks,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation

1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 08, 2010 8:17 AM
To: Barndt, Eric
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Ok. So your issues are just with the line and not the tanks, since they are double walled. Yes, I see the basis for 3 psi on the atmospheric line. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Thursday, April 08, 2010 7:50 AM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Thanks Carl. The below grade tanks at the Espinosa plant are double-walled and we inspect the annular space of each tank for leaks monthly, so I know from previous inquiries to you and Leonard that they do not need to be tested for MIT. And our systems drain by gravity from the process to the below grade tanks and the system operates under vacuum from the tanks to loadout stations, so they are at 0 psi (atmospheric) and negative pressure for those processes, respectively. That is why I was using 3 psi as the number in our conversation. I believe that meets the intent of the regulation/guidance, but if you could confirm that for me I would appreciate it. Thanks again for your help.

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
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Denver, CO 80202
eric.barndt@blackhillscorp.com
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Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 08, 2010 7:07 AM
To: Barndt, Eric
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Re: "Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure."

The pressure should be 1 to 1.5 times the normal operating pressure of the pipe (not 3 psi). For atmospheric drain systems, to 3 psi greater than the normal operating pressure. I don't think your lines operate at 0 psi to support your telephone call stating you want to put 3 psi on the line.....

If I think of anything, I'll let you know. Guidance should be found at ASTM, API, etc. You may attempt to google search for MIT methods using nitrogen, etc. to quickly identify resources to help you. You may propose an alternative if you identify other methods of performing tank integrity, etc. For example, if you have a double wall tank w/ leak detection system, no MIT is required, but checking LDS for presence of fluids, operation, etc. is required. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Tuesday, April 06, 2010 1:33 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hi Carl-

Thanks for your time on the phone a minute ago. Below was the most recent exchange you and I had on the OCD permit condition we are working on meeting. I will look into the OCD refinery permits you mentioned on the phone and communicate with the plant once they have the test meter at the site and have had a chance to do some experimenting with it. If something jumps out at you that might help us as we progress with developing a test procedure I would really appreciate your input. Thanks again,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, January 28, 2010 5:52 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Please find below some updated language on testing of process lines, etc. I think this language is more current than the language in your current permit and I hope it helps you to conceptualize the integrity testing of process lines better. OCD will review proposals for other MIT methods, but we look for some degree of credibility in the form of a reference to a professional guidebook, i.e., ASTM, API, DOT, etc. Thank you.

Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

Carl J. Chavez, CHMM
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1
- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.
- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.

- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Leonard-

To follow the message I just left on your office phone I am providing this email due to the results of our Below-Grade Tank inspection conducted this week at our Black Hills Espinosa Canyon Amine Plant. During the routine monthly inspection, we detected liquid in the annular space of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-109. The liquid has not, and will not to the best of our ability, reach the soil. Final

inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is replaced (see details below).

The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of lube oil waste produced by and drain from the natural gas compressor engines at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. During the routine inspection this week, liquid was detected and report to me. I reviewed the site inspection procedure, the Permit and State regulations. Although not directly applicable to us, since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. Order a direct replacement (same size, shape and design) below-grade tank. The original tank installation was approved by OCD. Note: Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for Gasoline and Diesel Range Organics in Soil).
6. Install the new below-grade tank. As noted above, Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
7. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention, that will include photographs of the tank removal process and soil samples analysis (see items 3 and 4 above).
8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and *identical* below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com

Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, April 08, 2010 7:07 AM
To: 'Barndt, Eric'
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Re: "Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure."

The pressure should be 1 to 1.5 times the normal operating pressure of the pipe (not 3 psi). For atmospheric drain systems, to 3 psi greater than the normal operating pressure. I don't think your lines operate at 0 psi to support your telephone call stating you want to put 3 psi on the line.....

If I think of anything, I'll let you know. Guidance should be found at ASTM, API, etc. You may attempt to google search for MIT methods using nitrogen, etc. to quickly identify resources to help you. You may propose an alternative if you identify other methods of performing tank integrity, etc. For example, if you have a double wall tank w/ leak detection system, no MIT is required, but checking LDS for presence of fluids, operation, etc. is required. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Tuesday, April 06, 2010 1:33 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hi Carl-

Thanks for your time on the phone a minute ago. Below was the most recent exchange you and I had on the OCD permit condition we are working on meeting. I will look into the OCD refinery permits you mentioned on the phone and communicate with the plant once they have the test meter at the site and have had a chance to do some experimenting with it. If something jumps out at you that might help us as we progress with developing a test procedure I would really appreciate your input. Thanks again,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, January 28, 2010 5:52 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Please find below some updated language on testing of process lines, etc. I think this language is more current than the language in your current permit and I hope it helps you to conceptualize the integrity testing of process lines better. OCD will review proposals for other MIT methods, but we look for some degree of credibility in the form of a reference to a professional guidebook, i.e., ASTM, API, DOT, etc. Thank you.

Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1

- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.
- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.
- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

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Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

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4. Take photographs of the tank removal process (including the tank and underlying soils).
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8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and identical below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.

10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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Chavez, Carl J, EMNRD

From: Barndt, Eric [Eric.Barndt@blackhillscorp.com]
Sent: Thursday, February 18, 2010 1:29 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Ok – thanks Carl. We will also include the loadout lines in our testing program then. I appreciate your quick response. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
To: Barndt, Eric
Sent: Thu Feb 18 13:19:04 2010
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)
Eric:

Good afternoon. There is no distinction between lines under vacuum or positive pressure. Therefore, if chemicals, waste water, gas, crude oil flow through the line, they are considered process lines that must be tested under the discharge permit. If inert fluids air, fresh water, etc. flow through a designated flow line, this would be the only exception to MITs on the flow line.

It is interesting that flow lines at one our refineries has developed a series for flange and blind flange leaks that over time were found to be leaking and/or the line loose wall thickness over time with flow down the lines and must eventually be replaced.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Thursday, February 18, 2010 12:40 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hi Carl-

I wanted to update you and let you now how things are progressing with our below-grade tank (TK-109). After conducting an engineering evaluation to determine if the existing below-grade tank can be replaced with an aboveground tank and exploring other potential options the Plant determined that **we will need to replace the existing below-grade tank**. Last Friday, February 12, we placed an order for fabrication/construction and delivery of a new like-kind below-grade replacement tank. The fabricator indicated that the tank will require approximately 10 weeks to complete construction and ship to the facility, maintaining the schedule outlined in my January 27, email below.

Another question that I wanted to ask you is related to the integrity testing underground pipelines that we are required to conduct as part of our Groundwater Discharge Permit (GW-356). We are aware that we need to test the lines that lead from process equipment to the below-grade tanks at the facility. Generally these lines run from knockout vessels and concrete containment apron drains to 3 500-gallon below-grade tanks (Tanks TK-101, 102 and 109). See attached drawing. However, I wanted to ask you about the underground lines that are routed from the 3 below-grade tanks to the loadout stations (I highlighted the loadout lines on the second attached drawing). These lines are not really part of the process and do not contain any liquids unless materials are being transferred from the tanks to a tank truck at the loadout stations. Also, there are no pumps used to transfer these liquids – loadout is instead conducted by vacuum. In other words the loadout lines are never under positive pressure during loadout, they are under negative pressure (suction) when materials are being vacuumed to the loadout station and onto the tank trucks. Therefore, leaks from the loadout lines are not possible. Due to this circumstance we concluded that the loadout lines do not need to be tested, but I wanted to confirm that with you before eliminating them from the scope of the underground pipeline integrity testing program we are developing. Would you please provide input on this issue and confirm that our conclusion that the loadout lines do not need to be tested is correct. Please call me if you have questions or need more details to confirm our conclusion. Thanks,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
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From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, January 27, 2010 10:05 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Mr. Barndt:

Approved. Black Hills Corp. will need to research ASTM and/or API or other Professional Guidelines and propose the MIT method for testing process lines, tanks, etc. at the facility for OCD review and approval.

Thank you.

Please be advised that OCD approval of this plan does not relieve Black Hills Exploration and Production, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Exploration and Production, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
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- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.
- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

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Thanks again for your assistance. Best regards,

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Sent: Friday, January 22, 2010 10:04 AM
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Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

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Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
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Sent: Wednesday, January 20, 2010 4:34 PM
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Leonard-

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The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of lube oil waste produced by and drain from the natural gas compressor engines at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. During the routine inspection this week, liquid was detected and report to me. I reviewed the site inspection procedure, the Permit and State regulations. Although not directly applicable to us, since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. Order a direct replacement (same size, shape and design) below-grade tank. The original tank installation was approved by OCD. Note: Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.

4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for Gasoline and Diesel Range Organics in Soil).
6. Install the new below-grade tank. As noted above, Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
7. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention, that will include photographs of the tank removal process and soil samples analysis (see items 3 and 4 above).
8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and identical below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, February 18, 2010 1:19 PM
To: 'Barndt, Eric'
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Good afternoon. There is no distinction between lines under vacuum or positive pressure. Therefore, if chemicals, waste water, gas, crude oil flow through the line, they are considered process lines that must be tested under the discharge permit. If inert fluids air, fresh water, etc. flow through a designated flow line, this would be the only exception to MITs on the flow line.

It is interesting that flow lines at one our refineries has developed a series for flange and blind flange leaks that over time were found to be leaking and/or the line loose wall thickness over time with flow down the lines and must eventually be replaced.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Thursday, February 18, 2010 12:40 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hi Carl-

I wanted to update you and let you now how things are progressing with our below-grade tank (TK-109). After conducting an engineering evaluation to determine if the existing below-grade tank can be replaced with an aboveground tank and exploring other potential options the Plant determined that **we will need to replace the existing below-grade tank**. Last Friday, February 12, we placed an order for fabrication/construction and delivery of a new like-kind below-grade replacement tank. The fabricator indicated that the tank will require approximately 10 weeks to complete construction and ship to the facility, maintaining the schedule outlined in my January 27, email below.

Another question that I wanted to ask you is related to the integrity testing underground pipelines that we are required to conduct as part of our Groundwater Discharge Permit (GW-356). We are aware that we need to test the lines that lead from process equipment to the below-grade tanks at the facility. Generally these lines run from knockout vessels and concrete containment apron drains to 3 500-gallon below-grade tanks (Tanks TK-101, 102 and 109). See attached drawing. However, I wanted to ask you about the underground lines that are routed from the 3 below-grade tanks to the loadout stations (I highlighted the loadout lines on the second attached drawing). These lines are not really part of the process and do not contain any liquids unless materials are being transferred from the tanks to a tank truck at the loadout stations. Also, there are no pumps used to transfer these liquids – loadout is instead conducted by vacuum. In other words the loadout lines are never under positive pressure during loadout, they are under negative pressure (suction) when materials are being vacuumed to the loadout station and onto the tank trucks. Therefore, leaks from the loadout lines are not possible. Due to this circumstance we concluded that the loadout lines do not need to be tested, but I wanted to confirm that with you before eliminating them from the scope of the underground pipeline integrity testing program we are developing. Would you please provide input on this issue and confirm that our conclusion that the

loadout lines do not need to be tested is correct. Please call me if you have questions or need more details to confirm our conclusion. Thanks,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, January 27, 2010 10:05 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Mr. Barndt:

Approved. Black Hills Corp. will need to research ASTM and/or API or other Professional Guidelines and propose the MIT method for testing process lines, tanks, etc. at the facility for OCD review and approval.

Thank you.

Please be advised that OCD approval of this plan does not relieve Black Hills Exploration and Production, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Exploration and Production, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1
- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the

existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.

- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.
- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
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Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD

Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

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Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
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eric.barndt@blackhillscorp.com
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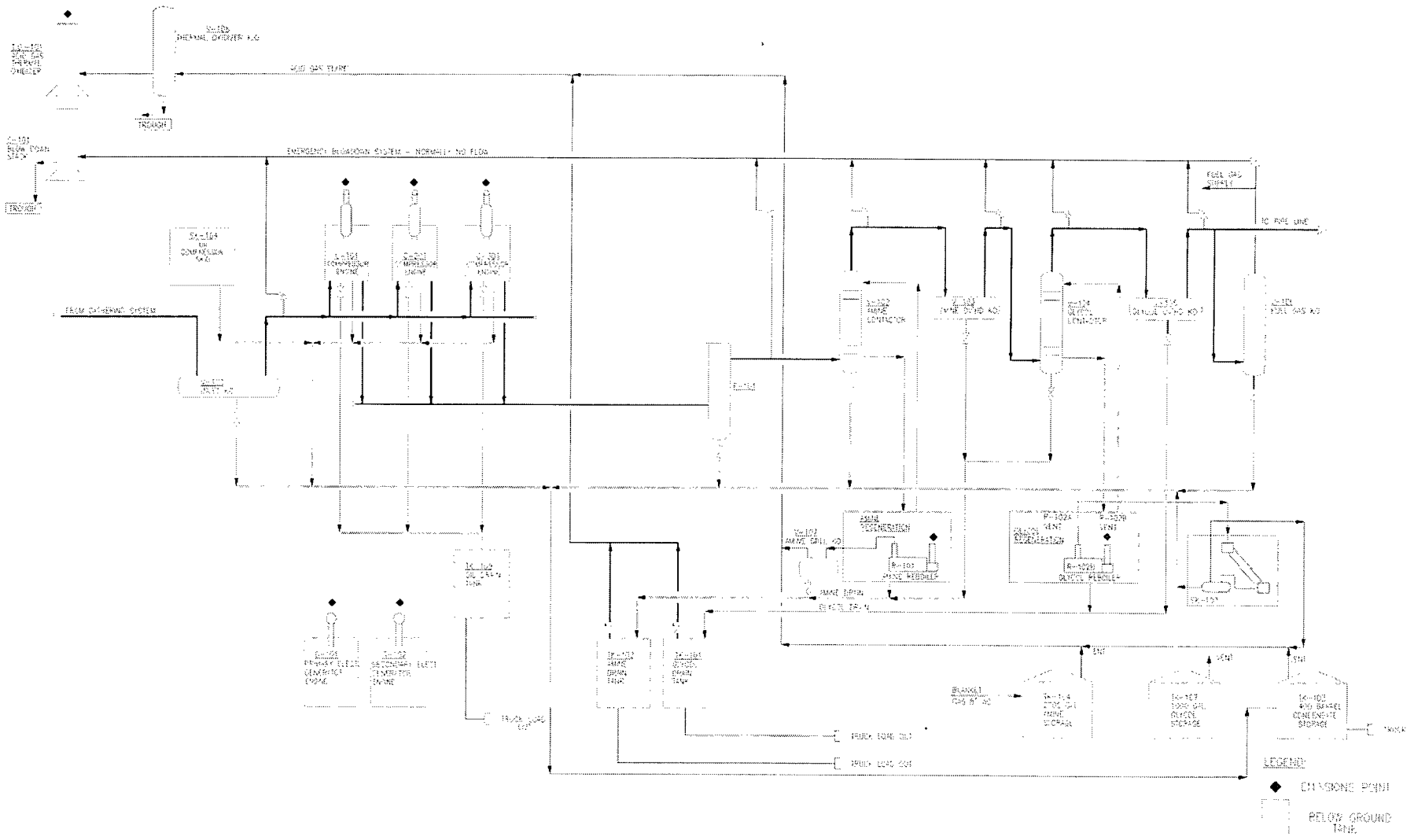


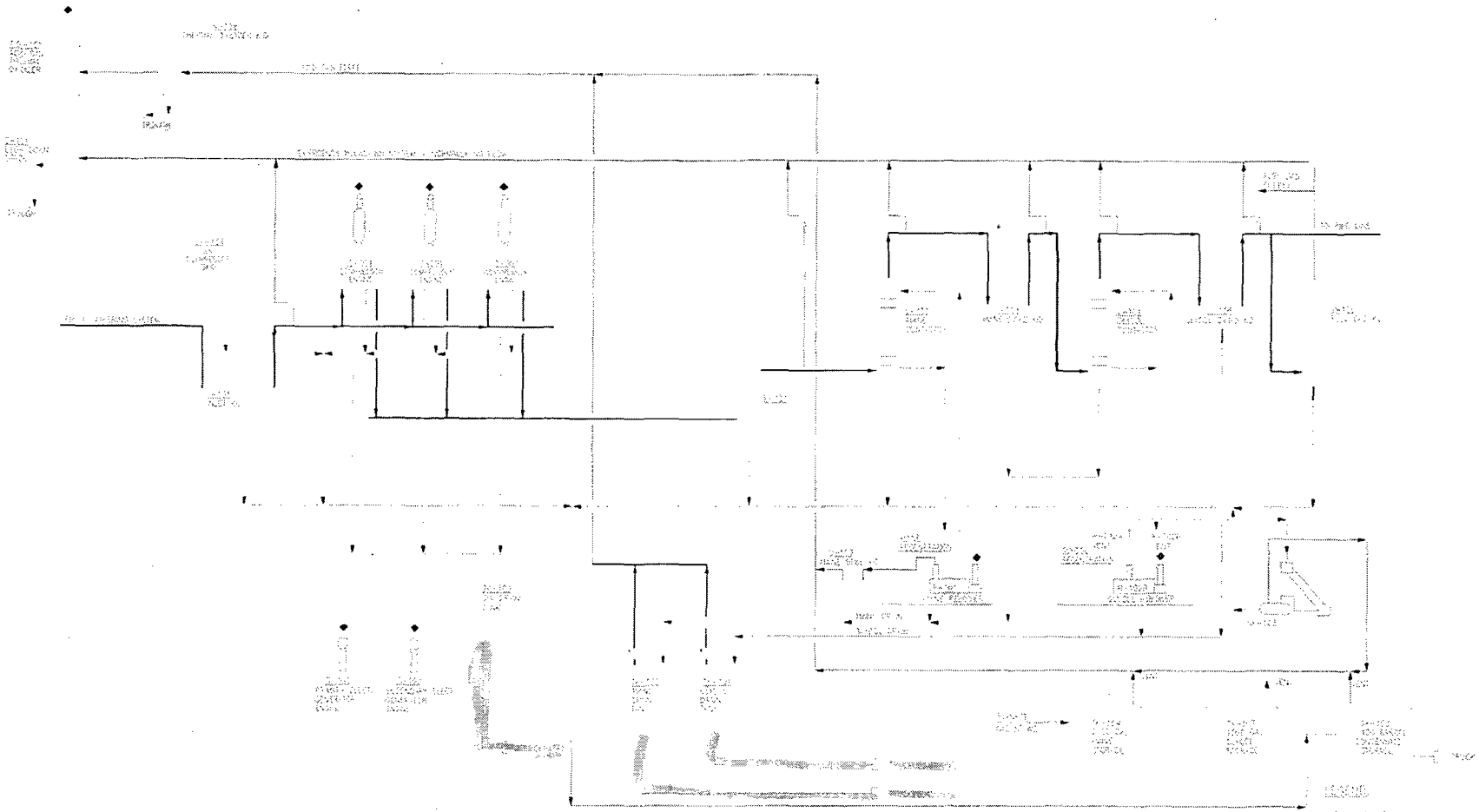
PELOTA GROUND TANK

PELICANE GROUP
1726 COLE BLVD.
BLDG 23, SUITE 200
GOLDEN, CO 80401
303-670-9388

BLACK HILLS EXPLORATION AND PRODUCTION, INC.
500 INDIANA STREET, SUITE 400
GOLDEN, CO 80401-5095

BLACK HILLS EXPLORATION
AND PRODUCTION
ESPINOSA CANYON AMINE PLANT
FIGURE 3

S ENV-2001 1 OF 1



BLACK HILLS EXPLORATION
AND PRODUCTION
ESPINOSA CANYON AMINE PLANT
FIGURE 3

B ENV-2001 1 OF 1

Chavez, Carl J, EMNRD

From: Barndt, Eric [Eric.Barndt@blackhillscorp.com]
Sent: Thursday, January 28, 2010 8:01 AM
To: Chavez, Carl J, EMNRD; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Very helpful – thanks for sending this Carl. This also provides more detail than the OCD's Guidelines for the Preparation of Discharge Plans at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations (Revised 12-95) that was the only other reference I could find on the issue. And those guidelines are basically the same as the condition included in our permit. We will look at the standards you mentioned and the text you provided to develop a testing plan for OCD approval. Thanks again,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
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From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, January 28, 2010 5:52 AM
To: Barndt, Eric; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Eric:

Please find below some updated language on testing of process lines, etc. I think this language is more current than the language in your current permit and I hope it helps you to conceptualize the integrity testing of process lines better. OCD will review proposals for other MIT methods, but we look for some degree of credibility in the form of a reference to a professional guidebook, i.e., ASTM, API, DOT, etc. Thank you.

Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate

location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
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I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
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Santa Fe, N.M. 87505
Office: 505-476-3492
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Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
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The tank is a cylindrical, 100% surrounded, dual wall carbon steel tank with an inner tank capacity of 560 gallons. The tank is completely buried just below-grade and the 2005 installation was approved by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD), as required. The tank is used to store small amounts of lube oil waste produced by and drain from the natural gas compressor engines at the Espinosa Canyon Amine Plant. The lube oil waste is stored in the below-grade tank (TK-109) temporarily until the inner tank nearly fills. Then the material in the tank is pumped or vacuumed to a truck load-out station, and is manifested and removed from the site for recycling or disposal at a permitted facility. As required by the Groundwater Discharge Permit GW-356 Condition 9, Espinosa has set up a monthly inspection routine to test the below-grade tank for liquid in the annular space between inner and outer tank shells: an indication of inner tank integrity. During the routine inspection this week, liquid was detected and report to me. I reviewed the site inspection procedure, the Permit and State regulations. Although not directly applicable to us, since GW-356 exempts this tank, the following regulation for Below-Grade Tanks provided clear direction:

(NMAC 19.15.17.11 "If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC).

From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

1. Continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils as prescribed in GW-356 Discharge Water Permit Condition 9.
2. Order a direct replacement (same size, shape and design) below-grade tank. The original tank installation was approved by OCD. Note: Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
3. Excavate the failed tank and thoroughly inspect for any signs of outer tank leakage to the soil. If detected, OCD will be notified immediately.
4. Take photographs of the tank removal process (including the tank and underlying soils).
5. Take samples of soils underlying the tank and any other areas of suspected contamination and submit to a laboratory for analysis (for Gasoline and Diesel Range Organics in Soil).
6. Install the new below-grade tank. As noted above, Black Hills may explore and consider other options in lieu of replacing the below-grade tank (TK-109) or using an aboveground tank for replacement.
7. Prepare and submit a Below-Grade Tank Removal Closure Report to your attention, that will include photographs of the tank removal process and soil samples analysis (see items 3 and 4 above).
8. Resume normal tank operations and routine inspections.
9. Depending on if we replace the tank with and identical below-grade tank or use an alternative method to manage the lube oil waste previously directed to TK-109, we will notify the New Mexico Environmental Department (NMED) to appropriately update out New Source Review construction and Title V operating permits. Under previous similar circumstances NMED requested that Black Hills submit an Administrative Permit Amendment for their review and approval. When approved NMED has issued an Administrative Permit Review approval for the NSR Construction Permits (3111-M2 and 3111-M3). This process will be repeated for this instance.
10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

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This email has been scanned using Webroot Email Security.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, January 27, 2010 10:05 AM
To: 'Barndt, Eric'; Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Mr. Barndt:

Approved. Black Hills Corp. will need to research ASTM and/or API or other Professional Guidelines and propose the MIT method for testing process lines, tanks, etc. at the facility for OCD review and approval.

Thank you.

Please be advised that OCD approval of this plan does not relieve Black Hills Exploration and Production, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Black Hills Exploration and Production, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 27, 2010 9:58 AM
To: Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: RE: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Hello Carl-

To follow-up on our telephone conversation of last week I am providing the following clarifications and additional information to supplement the email submitted to Leonard Lowe earlier last week (see below):

- Regarding Item 5 below, per your request Black Hills will test soils samples for total petroleum hydrocarbons (TPH) using EPA Method 418.1
- Because there is no evidence that the second wall of TK-109 is leaking and therefore no impacts are occurring to the environment (soils), we plan to conduct an engineering evaluation to determine if the tank can be replaced with an aboveground tank and/or explore other potential options in lieu of replacing the below-grade tank. If the existing below-grade tank can be replaced without using a replacement below-grade tank, we anticipate that the existing tank can be removed and lines rerouted in the next 6 weeks. If it is determined that we will replace the existing tank with a like-kind below-grade tank, we anticipate that fabrication/construction and delivery of the new tank will take approximately 12 weeks. Under this circumstance we anticipate that the existing tank can be removed and replaced with the like-kind below-grade tank in the next 15 weeks.
- We will keep you informed of the decision to replace TK-109 with an aboveground tank, implement another potential option in lieu of replacing the below-grade tank or replace the existing below-grade tank with a like-kind below-grade tank as that decision is made in the next several weeks. At that time we will be better able to project the timeline for the chosen option.

- As requested, we will notify OCD at least 24 hours in advance of the day we expect to remove the existing below-grade tank.

In addition to the items discussed above, I am requesting any information you can share with me regarding methods for integrity testing underground pipelines that would be acceptable to OCD. As discussed on the phone last week, we are particularly interested in inert gas testing methods (using nitrogen) in order to prevent the generation of large quantities of wastewater that would result from hydrostatic testing of pipelines.

Thanks again for your assistance. Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
1515 Wynkoop Street, Suite 500
Denver, CO 80202
eric.barndt@blackhillscorp.com
Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Friday, January 22, 2010 10:04 AM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Barndt, Eric
Subject: FW: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Carl, can you take care of this for me?

Mr. Barndt, please call Mr. Carl Chavez for further help in this matter.

I'm sorry for this trouble.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Barndt, Eric [mailto:Eric.Barndt@blackhillscorp.com]
Sent: Wednesday, January 20, 2010 4:34 PM
To: Lowe, Leonard, EMNRD
Cc: Powell, Brandon, EMNRD; Mordhorst, Tim; Hopkins, Tim; Stripling, Gary; Zentz, Doug; Childers, Art; Carl, Fred
Subject: Black Hills Espinosa Canyon Amine Plant Below Grade Tank Inspection (Permit GW-356)

Leonard-

To follow the message I just left on your office phone I am providing this email due to the results of our Below-Grade Tank inspection conducted this week at our Black Hills Espinosa Canyon Amine Plant. During the routine monthly inspection, we detected liquid in the annular space of our dual wall below-grade tank. The tank is identified in our Groundwater Discharge Permit GW-356 as TK-109. The liquid has not, and will not to the best of our ability, reach the soil. Final

inspection (and documentation) to ensure soil contamination did not occur will be completed when the tank is replaced (see details below).

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From this regulation and the Permit, I found no requirements to contact the State or OCD, since no spill had occurred. However, per previous similar circumstances, I left my voicemail and am sending this email to inform you of this matter as a courtesy notification. From previous similar circumstances I am aware that you would like to be informed of the situation and approve subsequent plans for replacement. Therefore, with the situation described above, our plan for corrective action is as follows:

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10. All actions will be executed as quickly as possible to minimize potential environmental concerns. OCD will be notified upon completion.

Leonard, please provide a response to this corrective action plan. If you require any additional information or have any concerns, please do not hesitate to contact me at the number below or via email.

Best regards,

-- Eric J. Barndt --
Environmental Engineer
Black Hills Corporation
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Denver, CO 80202
eric.barndt@blackhillscorp.com

Direct Office Phone: 303-566-3446
Mobile Phone: 303-775-9622

Eric J. Barndt
Environmental Engineer
E-mail eric.barndt@blackhillscorp.com

350 Indiana St., Suite 400
Golden, Colorado 80401
P (303) 566-3446
F (720) 210-1361

June 24, 2009

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Below Grade Tank Removal Closure Report
Espinosa Canyon Amine Plant (Discharge Permit GW-356)
Black Hills Midstream, LLC

Dear Mr. Lowe:

This Tank Removal Closure Report is being submitted for the removal of a Below Grade Tank that was completed during the week May 18, 2009 at the Black Hills Midstream, LLC (Black Hills) Espinosa Canyon Amine Plant (Discharge Permit GW-356). Notice of the tank removal was previously submitted to your attention in a May 28, 2009 correspondence. Details related to the facility and Below Grade Tank that was removed are as follows:

1. Location of Facility: Black Hills Espinosa Canyon Amine Plant, located approximately 16 miles southwest of Dulce in Rio Arriba County, NM.

2. Permit Number: This facility has been assigned New Mexico Energy, Minerals and Natural Resource Department (NMEMNR) Oil Conservation Division (OCD) Discharge Permit GW-356.

3. Details on Below Grade Tank Removed:
   a. Tank Number: TK-106
   b. Tank Volume: 560 gallons
   c. Tank Material: Double Walled Steel: inner wall 3/16-inch A36 steel; outer wall protected by cathodic anodes.
   d. Tank Leak Detection Method: Manually monitoring of leak detection gauges in annular space of a double walled tank system.
   e. Material Formerly Routed to and Stored in Tank: Liquid Condensate (see additional details provided under item 8 below).
   f. Removal Procedures: Attachment 1 provides a detailed log of the process that was undertaken for the removal of TK-106. Attachment 1 also includes a simplified diagram of TK-106.

4. Reason for Tank Decommissioning and Removal: Natural gas processing water was detected in the annular space of TK-106 during a routine monthly plant inspection in February 2009.

5. Measures Taken at Time of Discovery: At the time of discovery, it was determined that liquids in the tank remained within the annular space of the dual wall tank and had not migrated to surrounding soils. Black Hills

continued to monitor and document the liquid level in the annular space and inspect the surrounding surface soils until the tank was removed from service.

6. Tank Replacement Plan: Since discovering this circumstance Black Hills determined that the recovered liquid condensate (natural gas processing water) originally directed to TK-106 can be rerouted to an existing aboveground condensate tank (identified as TK-103), eliminating the need to replace the failed tank. TK-106 was merely a temporary holding tank for liquids which were ultimately pumped to TK-103. The original installation of these tanks was approved by the OCD. Vapors from both TK-106 (which was removed) and TK-103 (which will now receive the recovered natural gas processing water directly) and a new replacement BTEX condenser are routed to the Thermal Oxidizer (identified as TO-101), which means that no changes in facility emissions will occur as a result of the tank removal and rerouting of recovered natural gas processing water.

7. Verification of No Impacts to Surrounding Soils: In order to properly remove TK-106 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. If leakage to the soil had been detected, OCD would have been notified immediately, however no leakage was observed. Photographs of the tank and underlying soils were taken during this process to document the procedures and are included with this Tank Removal and Closure Report as Attachment 2.

   In addition, soil samples were taken and sent to a laboratory for analysis. The soil sample analysis is included with this Tank Removal and Closure Report as Attachment 3. The soil sample analysis indicate results 'Not Detected at the Reporting Limit' for Gasoline and Diesel Range Organics in Soil.

8. Rerouting of Materials Formerly Directed to Removed Tank: The diagram provided in Attachment 4 depicts the rerouting of liquid materials that were formerly directed to TK-106. A description of the rerouting of liquid materials and a brief description of the materials are as follows:
   a. Compressor Engine Liquids (C-101, C-201 and C-301): Rerouted directly to TK-103. Liquid generally material consists of 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   b. Inlet Scrubber Knockout (V-101): Rerouted directly to TK-103. Liquid material generally consists of 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   c. Amine (DGA) Intermediate Scrubber Knockout (V-102): Rerouted directly to TK-103. Liquid material generally consists of water.
   d. Fuel Gas Scrubber Knockout (V-106): Rerouted directly to TK-103. Liquid material generally consists of 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   e. Coalescer (F-101): Rerouted directly to TK-103. Liquid material generally consists of 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   f. Air Compressor (I/A-104): Rerouted directly to TK-103. Liquid material generally consists of approximately 95% water and 5% hydrocarbon.
   g. New BETX Condenser (no equipment number): Condensate routed directly to TK-103. Liquid material generally consists of condensed steam.
   h. Compressor Engine Blowdown (from C-101, C-201, and C-301): To trap then to 12 Barrel (BBL) cattle trough. Liquid material generally consists of 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   i. Silencer (S-101): Rerouted to new 12 BBL cattle trough. Liquid material generally consists of approximately 98% water and 2% manufactured oils (small fractions of compressor, coalescer and lubricating oils).
   j. Thermal Oxidizer (TO-101) Scrubber Knockout Trap (V-108): Rerouted to new 100 gallon cattle trough. Liquid material generally consists of water.

As we discussed during our June 1, 2009 telephone conversation, Black Hills is not required to prepare and submit the OCD Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application (Form C-144) for the removal of TK-106 because the facility operates under a current OCD permit (Discharge Permit GW-356).

Please call me at (303) 566-3446 if you have any questions related to this the Tank Removal and Closure Report.

Sincerely,

Eric J. Barndt
Black Hills

cc: Brandon Powell, OCD; 1000 Rio Brazos Road; Aztec, New Mexico 87410
Fred Carl, Black Hills Energy, Inc.
Tim Mordhorst, Black Hills
Gary Stripling, Black Hills

Attachment 1 – Tank TK-106 Removal Process Log (Black Hills Midstream Daily Report) and Simplified Diagram

Black Hills Midstream Daily Report

AFE # 30694-W
Project Name: Espinosa BTEX
Date: 5-18-09

Day 1 5-18-09:

Disconnect old Condenser Unit, pulled out cement footings, leveled settings, laid down 20ml plastic liner and set BTEX Unit. Began piping hookups and removed fence around TK-103.

Costs

Labor $3,000.00
Trucking $2,700.00
BTEX Unit $24,500.00
Sub-Total= $30,200.00

Day 2 5-19-08

Removed berm and liner in around TK-106, tied in air system to BTEX instrument air controllers, tied in gas supply to Catalytic Heater. Installed 20ml liner on BTEX containment berm. Tied in vapors off Dehy Unit to BTEX inlet and scrubber outlet lines.

Costs

Labor $3,800.00
Parts $675.00
Sub-Total= $34,675.00

Day 3 5-20-09:

Conducted JHA meeting, isolated dump lines and electrical outputs to TK-106. Used Vactron to uncover TK-106 and removed. Pulled soil samples, welded prefab piping and installed to TK-103. Put Dehy Unit back in service, made instrumentation adjustments and piping work continued vent gas to T.O.

Costs

Labor $7,500.00
Vactron $2,500.00
Parts $2,500.00
Sub-Total= $47,175.00

Day 4 5-21-09:

Piped in vent gases off BTEX Unit downstream of Dehy Reboiler to T.O. Would not work, due to pressure off dehy and amine flash gas pressure higher than 8oz. causing PSV to open upstream of BTEX Unit S-D Dehy Unit and re-routed to T.O. Dug ditch from M.C. water line to TK-103. Installed air line to TK-103 diaphragm pump, installed heat trace lines on inlet line to TK-103 and isolated drain lines off T.O. scrubber and Blow-down stack. Set containment TK's and piped drain lines in.

Costs

Labor $4,200.00
Sub-Total= $51,375.00

Day 5 5-22-09:

Completed ditch to TK-103 and hooked up poly pipe to TK-103, installing heat trace on risers and installed insulation. Revamping vapor line to T.O.

Costs

Labor $7,000.00
Parts $1,000.00
Sub Total= $59,375.00

Day 6 5-26-09:

Installed transfer pump and heat trace to TK-103, began re-building berm around TK-103 setting. Completed welding BTEX 2" vapor line to T.O.

Costs

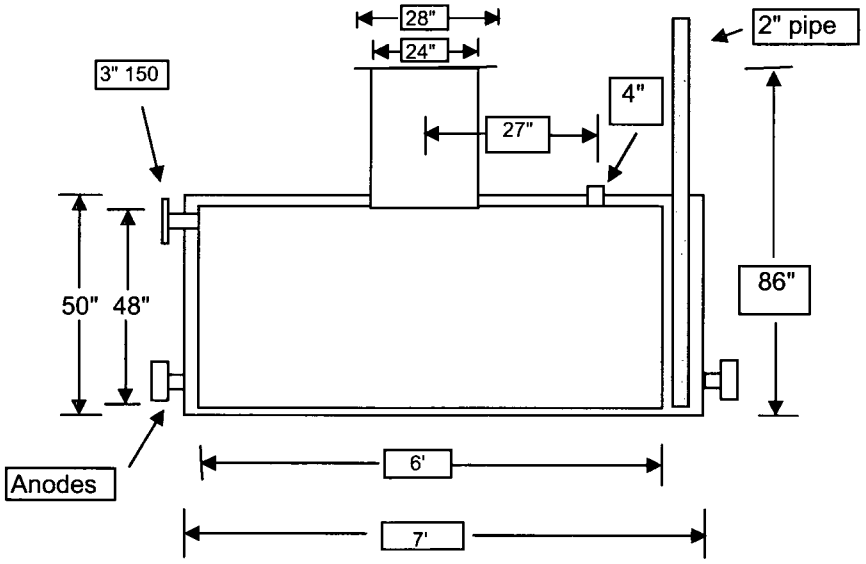
Labor $ 5,000.00
Sub-Total= $64,375.00

Day 7 5-27-09:

Re-installed tank liner, sealed put down gravel on berm, re-installed fencing, completed insulation on heat trace and painted piping.

Costs
Labor $ 1,500.00
Sub-Total= $65,875.00

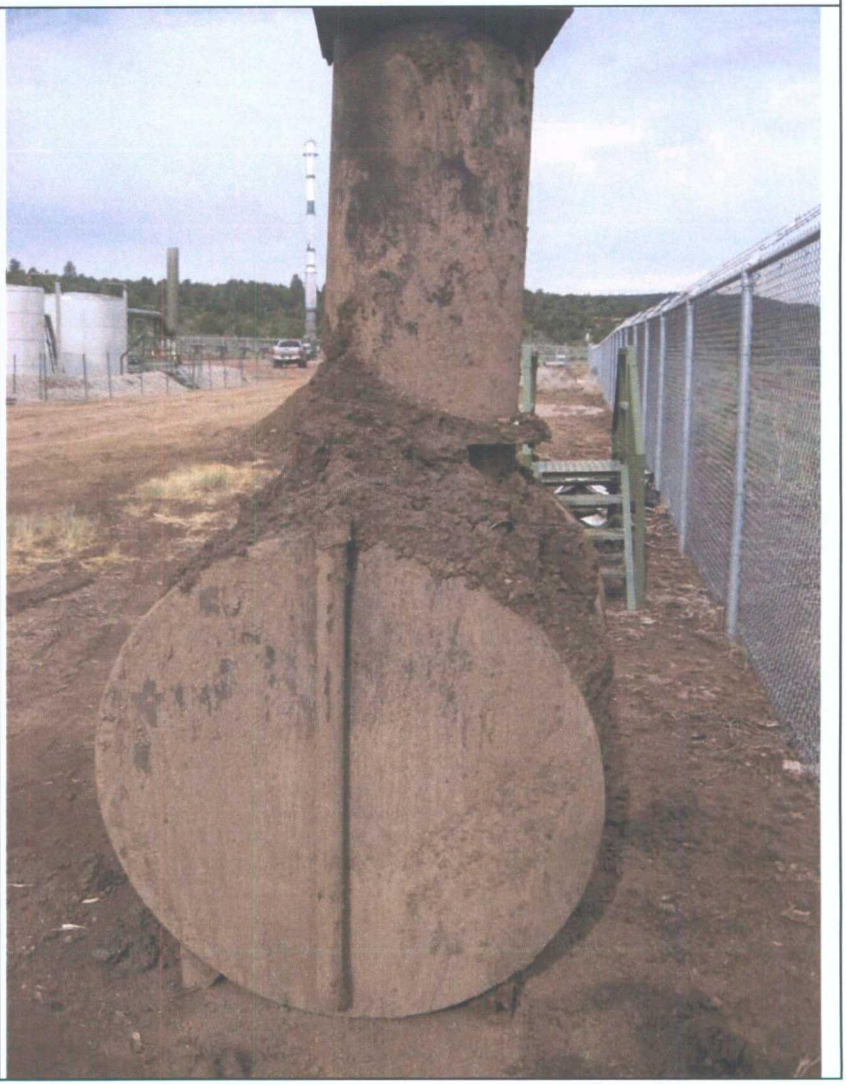
Black Hills Midstream
TK - 106 560 gal. Tank



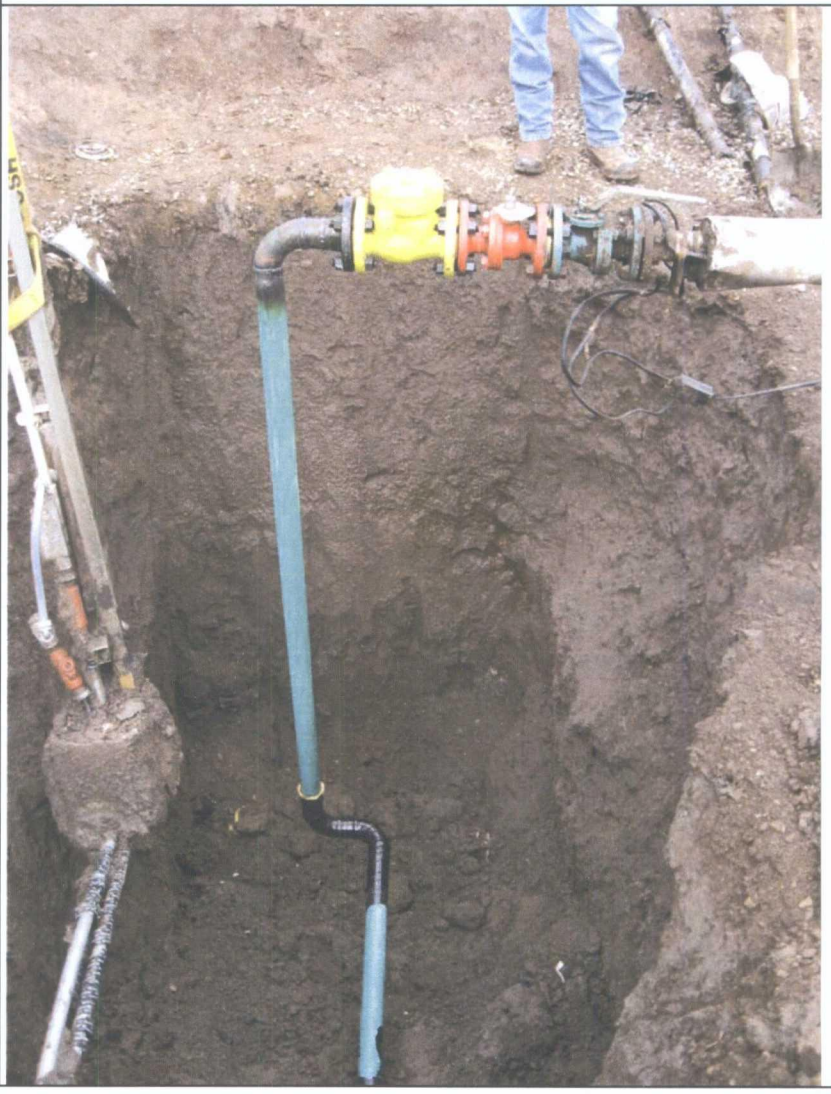
Tank -106 received liquids from V-101,V-106,C-101,C-201,C-301, BTEX Condensor (located on R-102-B), S-101, F-101, and V-108. These liquid contained mostly 98% water and 2% compressor manufactured oils. Due to the failure of the inner tank wall, that's consists of carbon steel 3/16" A36 wall. This holds 560 gals. with a outer wall protection with anodes. Leak was detected and level was lowered below leakage level and monitored monthly with no signs of increase of outer wall levels. On 5-20-09 TK-106 was removed with no signs of leakage under tank or visual on tank itself. Soil samples were taken and sent to Inter-Mountain Laboratories for analysis. Tank inlet header was tied into TK-103 for liquid storage.

Attachment 2 – Photographs of Tank Removed (TK-106) and Surrounding Soils

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-106 Below Grade Tank Removal Closure Report
Photo No. **1** **Description:** Photo 1 of 3: 560 gallon Double Walled Below Grade Tank that was removed (TK-106).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-106 Below Grade Tank Removal Closure Report
Photo No. **2** **Description:** Photo 2 of 3: 560 gallon Double Walled Below Grade Tank that was removed (TK-106).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-106 Below Grade Tank Removal Closure Report
Photo No. **3** **Description:** Photo 3 of 3: 560 gallon Double Walled Below Grade Tank that was removed (TK-106).	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-106 Below Grade Tank Removal Closure Report
Photo No. **4** **Description:** Photo 1 of 2: Soil underlying former location of 560 gallon Double Walled Below Grade Tank that was removed (TK-106). Picture also shows tie in for piping that originally routed flow to TK-106 that now directs liquids to TK-103.	

PHOTOGRAPHIC LOG	**Site Location:** Black Hills Espinosa Canyon Amine Plant - Rio Arriba County, NM TK-106 Below Grade Tank Removal Closure Report
Photo No. **5** **Description:** Photo 2 of 2: Soil underlying former location of 560 gallon Double Walled Below Grade Tank that was removed (TK-106). Picture also shows tie in for piping that originally routed flow to TK-106 that now directs liquids to TK-103.	

Attachment 3 – Inter-Mountain Laboratories Soil Sample Analysis

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Date: *22-Jun-09*

CLIENT: Black Hills Gas Resources
Project: Espinosa
Lab Order: O0905053

CASE NARRATIVE

Report ID: O0905053002
(Replaces O0905053001)

This data package consists of the following:
Case Narrative - 1 page
Sample Analysis Reports - 1 pages
Quality Control Reports - 7 pages
Inorganic Sample Analysis Reports - 2 pages
Copy of the Chain of Custody Record - 1 page

Samples were analyzed for organic constituents using the methods outlined in the following references:

- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, United States Environmental Protection Agency (USEPA).

All method blanks, duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Data qualifiers are defined at the bottom of each page.

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

Sample Analysis Report

CLIENT: Black Hills Gas Resources
3200 North 1st Street
PO Box 249
Bloomfield, NM 87413

Date Reported: 6/22/2009
Report ID: O0905053002
(Replaces O0905053001)

Project: Espinosa
Lab ID: O0905053-001
Client Sample ID: EPSS001
Matrix: Soil

Work Order: O0905053
Collection Date: 5/20/2009 2:20:00 PM
Date Received: 5/21/2009 11:00:00 AM
COC: 116982

Analyses	Result	RL	Limits	Qual	Units	Date Analyzed/Init	
8021B MBTEXN-Soil						**Prep Date: 5/27/2009**	
Benzene	ND	0.50			mg/Kg	05/27/2009	MAB
Toluene	ND	0.50			mg/Kg	05/27/2009	MAB
Ethylbenzene	ND	0.50			mg/Kg	05/27/2009	MAB
m,p-Xylenes	ND	1.0			mg/Kg	05/27/2009	MAB
o-Xylene	ND	0.50			mg/Kg	05/27/2009	MAB
Surr: 4-Bromofluorobenzene	107		69-136		%REC	05/27/2009	MAB
8015B Gasoline Range Organics-Soil						**Prep Date: 5/27/2009**	
Gasoline Range Organics (nC6-nC10)	ND	10			mg/Kg	05/27/2009	MAB
Surr: 4-Bromofluorobenzene	107		69-136		%REC	05/27/2009	MAB
8015B Diesel Range Organics-Soil						**Prep Date: 5/21/2009**	
Diesel Range Organics (nC10-nC32)	ND	20			mg/Kg	05/22/2009	CD
Surr: o-Terphenyl	75.4		25-126		%REC	05/22/2009	CD

These results apply only to the samples tested. **RL - Reporting Limit**

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Diluted out of recovery limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Effect
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Reviewed by: Ed Scruton
Ed Scruton, Analytical Chemist

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: 8015DROS

Sample ID: **MB-3391** SampType: **MBLK** TestCode: **8015DROS** Units: **mg/Kg** Prep Date: **5/21/2009** RunNo: **4626**
Client ID: **ZZZZZ** Batch ID: **3391** TestNo: **8015DROS** **(SW3550A)** Analysis Date: **5/22/2009** SeqNo: **67834**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	ND	20									
Total Extractable Hydrocarbons (nC8-n	ND	20									
Surr: o-Terphenyl					101	25	126				

Sample ID: **LCS-3391** SampType: **LCS** TestCode: **8015DROS** Units: **mg/Kg** Prep Date: **5/21/2009** RunNo: **4626**
Client ID: **ZZZZZ** Batch ID: **3391** TestNo: **8015DROS** **(SW3550A)** Analysis Date: **5/22/2009** SeqNo: **67835**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	122.8	20	160		76.7	33	97				
Total Extractable Hydrocarbons (nC8-n	121.3	20	160		75.8	33	97				
Surr: o-Terphenyl					111	25	126				

Sample ID: **LCSD-3391** SampType: **LCSD** TestCode: **8015DROS** Units: **mg/Kg** Prep Date: **5/21/2009** RunNo: **4626**
Client ID: **ZZZZZ** Batch ID: **3391** TestNo: **8015DROS** **(SW3550A)** Analysis Date: **5/22/2009** SeqNo: **67836**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	108.5	20	160	0	67.8	33	97	122.8	12.4	20	
Total Extractable Hydrocarbons (nC8-n	106.1	20	160	0	66.3	33	97	121.3	13.4	20	
Surr: o-Terphenyl				0	102	25	126	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: 8015DROS

Sample ID: **O0905045-005BMS** SampType: **MS** TestCode: **8015DROS** Units: **mg/Kg** Prep Date: **5/21/2009** RunNo: **4626**
Client ID: **ZZZZZ** Batch ID: **3391** TestNo: **8015DROS** **(SW3550A)** Analysis Date: **5/22/2009** SeqNo: **67841**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	98.08	20	160	0	61.3	4	124	0	0		
Total Extractable Hydrocarbons (nC8-n	96.18	20	160	0	60.1	4	124	0	0		
Surr: o-Terphenyl				0	95.2	25	126	0	0		

Sample ID: **O0905045-005BMSD** SampType: **MSD** TestCode: **8015DROS** Units: **mg/Kg** Prep Date: **5/21/2009** RunNo: **4626**
Client ID: **ZZZZZ** Batch ID: **3391** TestNo: **8015DROS** **(SW3550A)** Analysis Date: **5/22/2009** SeqNo: **67842**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (nC10-nC32)	93.94	20	160	0	58.7	4	124	98.08	4.31	20	
Total Extractable Hydrocarbons (nC8-n	91.85	20	160	0	57.4	4	124	96.18	4.61	20	
Surr: o-Terphenyl				0	101	25	126	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: 8015GROS

Sample ID: **MB-3402** SampType: **MBLK** TestCode: **8015GROS** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4639**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8015GROS** **(SW5035)** Analysis Date: **5/27/2009** SeqNo: **68081**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	ND	10									
Surr: 4-Bromofluorobenzene					113	69	136				

Sample ID: **LCS-3402** SampType: **LCS** TestCode: **8015GROS** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4639**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8015GROS** **(SW5035)** Analysis Date: **5/27/2009** SeqNo: **68082**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	97.86	10	90		109	76	129				
Surr: 4-Bromofluorobenzene					111	69	136				

Sample ID: **LCSD-3402** SampType: **LCSD** TestCode: **8015GROS** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4639**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8015GROS** **(SW5035)** Analysis Date: **5/27/2009** SeqNo: **68083**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	103.2	10	90	0	115	76	129	97.86	5.28	20	
Surr: 4-Bromofluorobenzene				0	107	69	136	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: **8015GROS**

Sample ID: **O0905058-013AMS** SampType: **MS** TestCode: **8015GROS** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4639**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8015GROS** **(SW5035)** Analysis Date: **5/27/2009** SeqNo: **68085**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	108.3	10	90	18.1	100	61	130	0	0		
Surr: 4-Bromofluorobenzene				0	110	69	136	0	0		

Sample ID: **O0905058-013AMSD** SampType: **MSD** TestCode: **8015GROS** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4639**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8015GROS** **(SW5035)** Analysis Date: **5/27/2009** SeqNo: **68086**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (nC6-nC10)	125.3	10	90	18.1	119	61	130	108.3	14.5	20	
Surr: 4-Bromofluorobenzene				0	116	69	136	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **MB-3402** SampType: **MBLK** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4638**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8021MBTEXN (SW5035)** Analysis Date: **5/27/2009** SeqNo: **68074**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylenes	ND	1.5									
o-Xylene	ND	0.50									
Surr: 4-Bromofluorobenzene					114	69	136				

Sample ID: **LCS-3402** SampType: **LCS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4638**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8021MBTEXN (SW5035)** Analysis Date: **5/27/2009** SeqNo: **68076**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.790	0.50	10		97.9	74	113				
Toluene	10.65	0.50	10		106	81	114				
Ethylbenzene	10.80	0.50	10		108	84	112				
m,p-Xylenes	21.70	1.5	20		109	85	116				
o-Xylene	10.81	0.50	10		108	84	121				
Surr: 4-Bromofluorobenzene					112	69	136				

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q (Replaces O0905053001Q)
TestCode: 8021MBTEXN_S

Sample ID: **LCSD-3402** SampType: **LCSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4638**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8021MBTEXN (SW5035)** Analysis Date: **5/27/2009** SeqNo: **68075**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.01	0.50	10	0	100	74	113	9.79	2.22	20	
Toluene	10.48	0.50	10	0	105	81	114	10.65	1.56	20	
Ethylbenzene	10.57	0.50	10	0	106	84	112	10.8	2.20	20	
m,p-Xylenes	21.33	1.5	20	0	107	85	116	21.7	1.74	20	
o-Xylene	10.86	0.50	10	0	109	84	121	10.81	0.461	20	
Surr: 4-Bromofluorobenzene				0	109	69	136	0	0	20	

Sample ID: **O0905058-013AMS** SampType: **MS** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4638**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8021MBTEXN (SW5035)** Analysis Date: **5/27/2009** SeqNo: **68078**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.360	0.50	10	0	93.6	63	112	0	0		
Toluene	10.24	0.50	10	0	102	69	112	0	0		
Ethylbenzene	10.44	0.50	10	0	104	67	117	0	0		
m,p-Xylenes	21.22	1.5	20	0	106	67	121	0	0		
o-Xylene	10.76	0.50	10	0	108	56	132	0	0		
Surr: 4-Bromofluorobenzene				0	105	69	136	0	0		

Qualifiers:
D Diluted out of recovery limit
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
M Matrix Effect
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Inter-Mountain Laboratories, Inc
555 Absaraka Street, Sheridan, Wyoming 82801
(307) 674-7506

ANALYTICAL QC SUMMARY REPORT

Date: 6/22/2009

CLIENT: Black Hills Gas Resources
Work Order: O0905053
Project: Espinosa

Report ID: O0905053002Q
(Replaces O0905053001Q)
TestCode: **8021MBTEXN_S**

Sample ID: **O0905058-013AMSD** SampType: **MSD** TestCode: **8021MBTEXN** Units: **mg/Kg** Prep Date: **5/27/2009** RunNo: **4638**
Client ID: **ZZZZZ** Batch ID: **3402** TestNo: **8021MBTEXN (SW5035)** Analysis Date: **5/27/2009** SeqNo: **68079**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10.62	0.50	10	0	106	63	112	9.36	12.6	20	
Toluene	11.52	0.50	10	0	115	69	112	10.24	11.7	20	SM
Ethylbenzene	11.70	0.50	10	0	117	67	117	10.44	11.4	20	SM
m,p-Xylenes	23.60	1.5	20	0	118	67	121	21.22	10.6	20	
o-Xylene	11.93	0.50	10	0	119	56	132	10.76	10.4	20	
Surr: 4-Bromofluorobenzene				0	112	69	136	0	0	20	

Qualifiers:

D	Diluted out of recovery limit	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Matrix Effect	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Black Hills Gas Resources
3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Report ID: S0905391001

Project: Espinosa
Date Received: 5/21/2009

Date Reported: 6/12/2009
Work Order: S0905391

Lab ID	Sample ID	Electrical Conductivity dS/m USDA 60-4a	TDS ppm Calculation	TPH mg/Kg 418.1	PE Calcium meq/L EPA 200.7	PE Magnesium meq/L EPA 200.7	PE Potassium meq/L EPA 200.7	PE Sodium meq/L EPA 200.7	Alkalinity meq/L USDA 60-3a	Chloride meq/L USDA 60-3a	Sulfate meq/L USDA 60-3a
S0905391-001	EPSS001	0.57	365	<200	1.42	0.52	0.02	3.67	2.96	0.67	2.08

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Tom Patten

Tom Patten, Laboratory Manager

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Black Hills Gas Resources

3200 North 1st Street; P.O. Box 249
Bloomfield, NM 87413

Report ID: S0905391001

Project: Espinosa
Date Received: 5/21/2009

Date Reported: 6/12/2009
Work Order: S0905391

Lab ID	Sample ID	Total Arsenic ppm 6010B	Total Barium ppm 6010B	Total Cadmium ppm 6010B	Total Chromium ppm 6010B	Total Lead ppm 6010B	Total Selenium ppm 6010B	Total Silver ppm 6010B	Total Mercury ppm 7471A
S0905391-001	EPSS001	2	207	<1	18	<10	<2.5	<0.5	<0.2

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Tom Patten

Tom Patten, Laboratory Manager

Inter-Mountain Laboratories, Inc.
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

This is a LEGAL DOCUMENT. All shaded fields must be completed. # 116982

Client Name	Black Hills Gas Resources	**Project Identification**	Espuma
Sampler (Signature/Printed)	Daniel Manus / Daniel Manus	**Telephone #**	
Report Address	3200 N 1st St Bloomfield NM 87413	**Contact Name and Email**	Daniel Manus daniel.manus@blackhillscorp
		Voice	505 634 1111 x 28
		FAX	
Invoice Address	Same as above	**Purchase Order #**	**Quote #**

ANALYSES / PARAMETERS

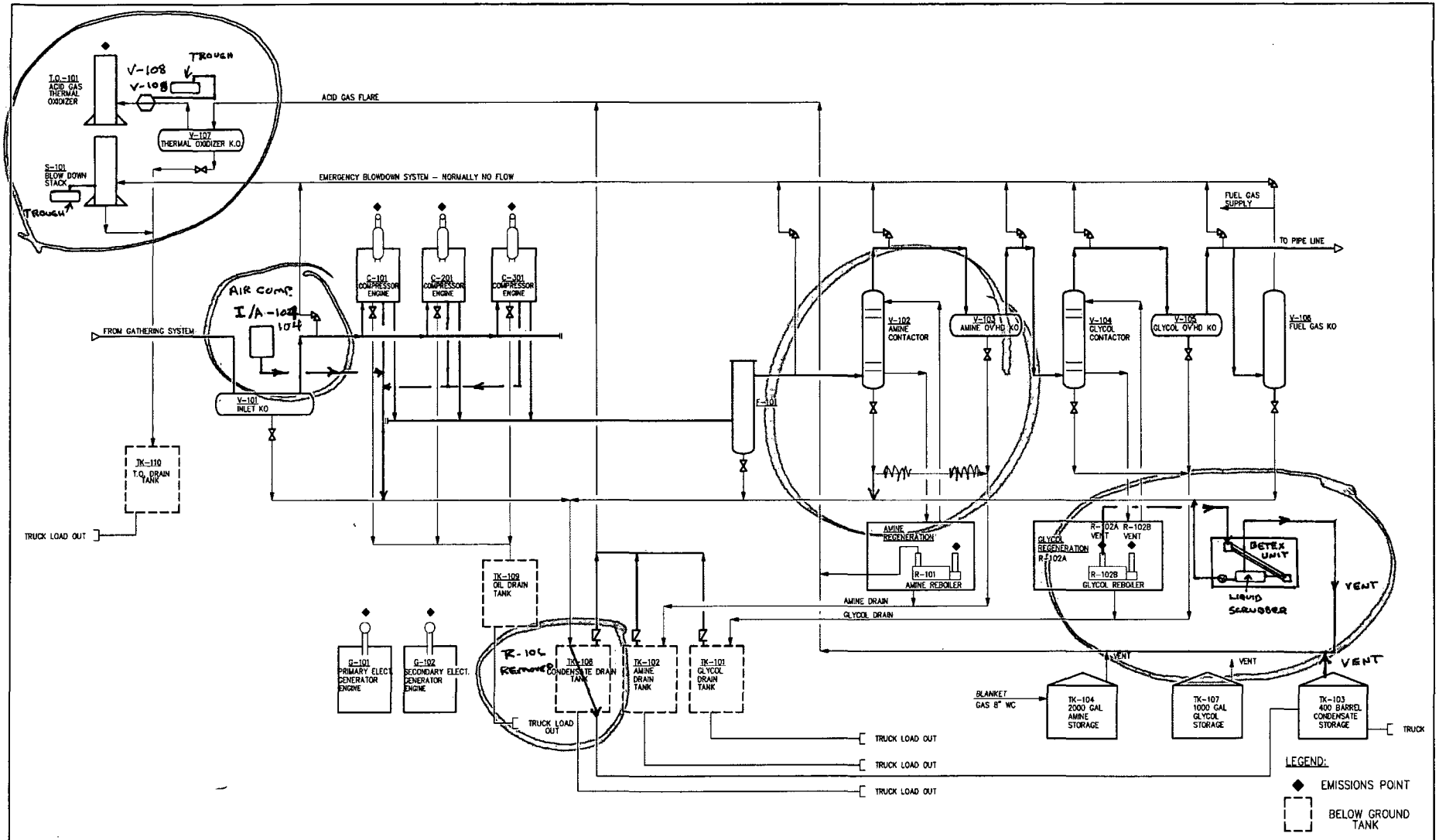
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	BTEX	GRO	DRO	Cation	Anion	RCRA	TDS		REMARKS
1		5/20	1420	EP 55001	SL	3	X	X	X	X	X	X	X		
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Daniel Manus / Daniel Manus	5/20	1631	Ed Scruton / Ed Scruton	05/21/09	1100

SHIPPING INFO	MATRIX CODES		TURN AROUND TIMES	COMPLIANCE INFORMATION		ADDITIONAL REMARKS
☐ UPS	Water	WT	Check desired service	Compliance Monitoring ?	Y / N	
☒ Fed Express	Soil	SL	☒ Standard turnaround	Program (SDWA, NPDES, ...)		
☐ US Mail	Solid	SD	☐ **RUSH** - 5 Working Days	PWSID / Permit #		
☐ Hand Carried	Trip Blank	TB	☐ **URGENT** - < 2 Working Days	Chlorinated?	Y / N	
☐ Other_____	Other	OT	*Rush & Urgent Surcharges will be applied*	Sample Disposal: Lab ____	Client ____	

0090503

Attachment 4 – Revised Tank Configuration Diagram



A	ISSUED FOR APPROVAL		

PEREGRINE GROUP
1726 COLE BLVD
BLDG 22, SUITE 200
GOLDEN, CO 80401
303-670-9388

McDonald		
CLIENT		

CLIENT PROJECT NO.

PROJECT NO. 200404103

SCALE: NONE

BLACK HILLS EXPLORATION
AND PRODUCTION, INC.
350 INDIANA STREET, SUITE 400
GOLDEN, CO 80401-5096

BLACK HILLS EXPLORATION AND PRODUCTION
ESPINOSA CANYON AMINE PLANT
FIGURE 3

REVISION	DRAWING NO.	SHEET NO.
A	ENV-2001	1 OF 1

RECEIVED
2009 MAY 29 AM 11 32

Eric J. Barndt
Environmental Engineer
E-mail eric.barndt@blackhillscorp.com

350 Indiana St., Suite 400
Golden, Colorado 80401
P (303) 566-3446
F (720) 210-1361

GW-356

May 28, 2009

New Mexico Energy, Minerals and Natural Resource Department
Oil Conservation Division
Attention: Mr. Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, N.M. 87505

RE: Below Grade Tank Removal at
Espinosa Canyon Amine Plant (Construction Permit Number 311-M2 and 311-M3 and Operating Permit Number P248)
Black Hills Midstream, LLC

Dear Mr. Lowe:

This correspondence is intended to notify you that Black Hills Midstream, LLC (Black Hills) removed a Below Grade Tank during the week of May 18, 2009. The Below Grade Tank removal follows email correspondence between you and Mr. Tim Mordhorst, with Black Hills Corporation, dated Friday, February 27 and March 2, 2009. Mr. Mordhorst's February 27 email provided details related to the discovery of natural gas processing water detected in the annular space of a dual wall Below Grade Tank during a routine monthly plant inspection in February 2009. At the time of discovery, it was determined that liquids in the tank remained within the annular space of the dual wall tank and had not migrated to surrounding soils. The tank is identified as TK-106, and the email exchanges established a plan for Black Hills to continue to monitor and document the liquid level in the annular space and inspect the surrounding surface soils until a direct replacement (same size, shape and design) Below Grade Tank was ordered, fabricated and delivered to the facility. However, since discovering this circumstance we determined that the recovered natural gas processing water originally directed to TK-106 can be rerouted to an existing aboveground condensate tank (identified as TK-103), eliminating the need to replace the failed tank. TK-106 was merely a temporary holding tank for liquids which were ultimately pumped to TK-103. The original installation of these tanks was approved by the Oil Conservation District (OCD). Vapors from both TK-106 (which was removed) and TK-103 (which will now receive the recovered natural gas processing water directly) are routed to the Thermal Oxidizer (identified as TO-101), which means that no changes in facility emissions will occur as a result of the tank removal and rerouting of recovered natural gas processing water.

In order to properly remove TK-106 Black Hills excavated the failed tank and thoroughly inspected for any signs of outer tank leakage to the soil. If leakage to the soil had been detected, OCD would have been notified immediately, however no leakage was observed. Per your request, photographs of the tank and underlying soils were taken during this process to document the procedures and will be maintained onsite.

Please call me at (303) 566-3446 if you have any questions concerning the Below Grade Tank Removal.

Sincerely,

Eric J. Barndt
Black Hills

cc: Brandon Powell, OCD; 1000 Rio Brazos Road; Aztec, New Mexico 87410
Fred Carl, Black Hills Energy, Inc.
Tim Mordhorst, Black Hills
Gary Stripling, Black Hills

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, April 18, 2008 8:15 AM
To: 'tjmord@bh-corp.com'
Cc: gstripling@bhep.com; sbrown@bhep.com; jconnor@bhenergy.com
Subject: RE: Espinosa Canyon Amine Plant - Permit GW-356 Condition 9 Below Grade Tank Approval Request

Mr. Mordhorst, P.E.:

Good morning. The New Mexico Oil Conservation Division (OCD) has completed its review of your submittal for the underground storage tank replacement and installation of a new tank, and has determined that you are in compliance with Section 9 of the discharge permit. In the future, the OCD recommends that you submit information prior to installation to allow the OCD to witness the removal, approvals, etc.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: tjmord@bh-corp.com [mailto:tjmord@bh-corp.com]
Sent: Thursday, April 17, 2008 4:48 PM
To: Chavez, Carl J, EMNRD
Cc: gstripling@bhep.com; sbrown@bhep.com; jconnor@bhenergy.com
Subject: Espinosa Canyon Amine Plant - Permit GW-356 Condition 9 Below Grade Tank Approval Request

Carl, thanks for talking with me today on the phone. As you requested, I am providing email documentation on our request for underground tank installation approval (Espinosa Canyon Amine Plant Water Discharge Permit GW-356 Condition 9).

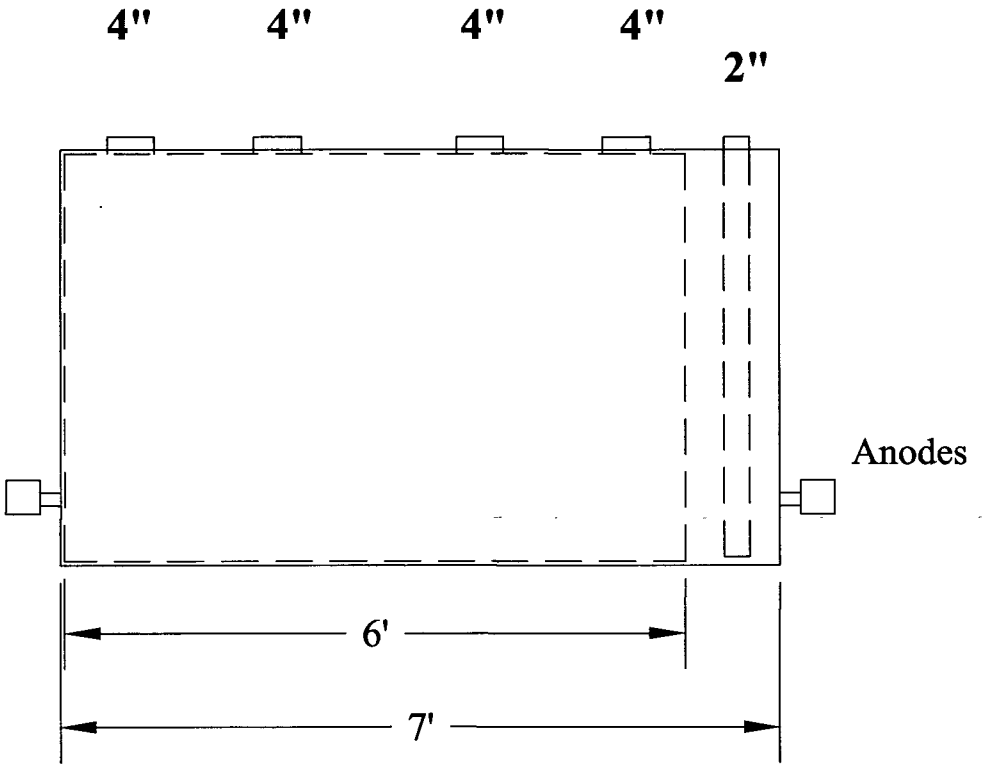
As I described to you on the phone, on 4/14/08 we completed installation of an underground storage tank to replace an identical existing underground storage tank. The existing tank was discovered to contain fluid between the inner and outer shell during our permit required routine monthly inspection (upon excavation, no soil contamination was detected around the outer shell). I apologize for not providing this request for approval prior to the installation, it was a permit oversight that was not discovered until I reviewed the permit to determine if tank replacement notification was required.

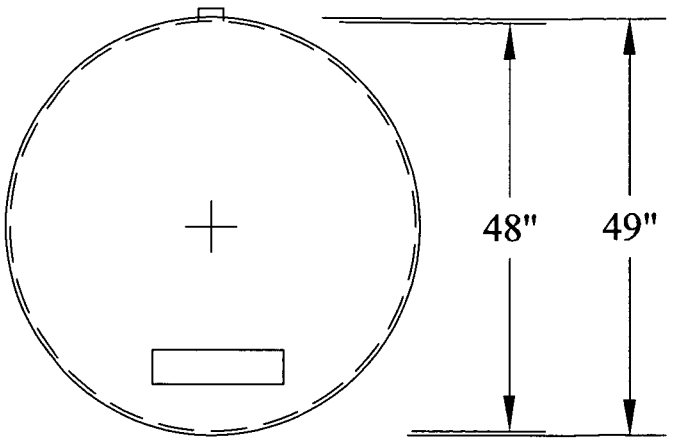
Please review the attached documentation on the installed tank and the installation instructions. To complete our compliance records, please provide an approval/disapproval response for this equipment. We will continue our routine monthly monitoring of our underground tanks per our written procedures.

If you have any further questions, please give me a call or send me an email.

Thank you,

Tim Mordhorst, P.E.
Black Hills Corporation
605.721.2181





* STI - P3 Doublewall
* 7 gauge carbon steel - inner tank
  10 gauge carbon steel - outer tank
* Weight: 1,500 lbs
* Urethane exterior

560 GALLON DOUBLE WALL P3

Approved By:	Drawing Number:
Customer: Kubat Equipment	

Steel Tank Institute

CATHODICALLY PROTECTED UNDERGROUND STORAGE TANKS

STI P3 PRE-ENGINEERED PROVEN PROTECTION

INSTALLATION INSTRUCTIONS

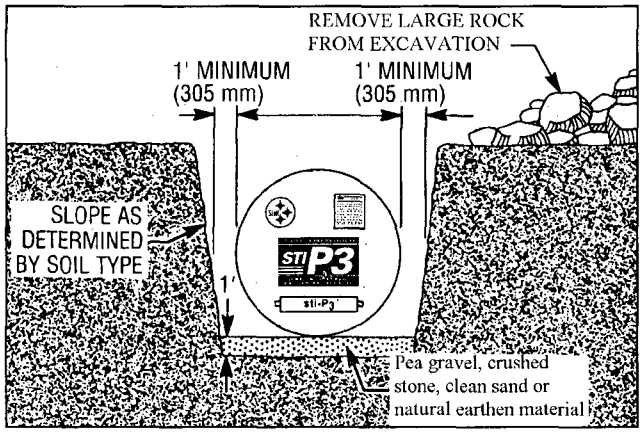
R821-02

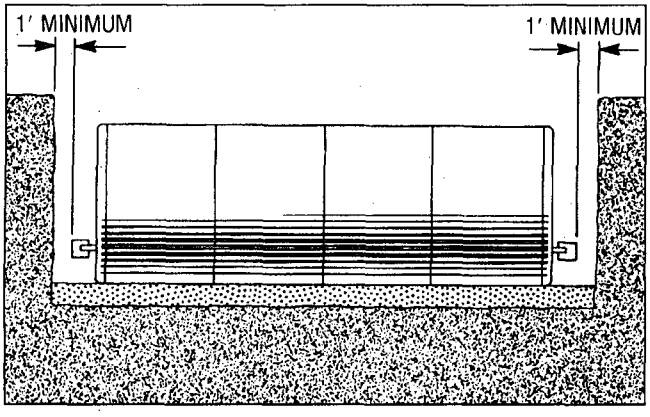
DECEMBER 2003

1.0 EXCAVATION AND BEDDING

1.1 The bottom of the excavation shall be covered with a minimum of 12 inches (305 mm) of bedding, suitably graded and leveled. Bedding and backfill material surrounding the tank, to a width and depth of 12 inches (305 mm) all around the tank, shall be clean material.

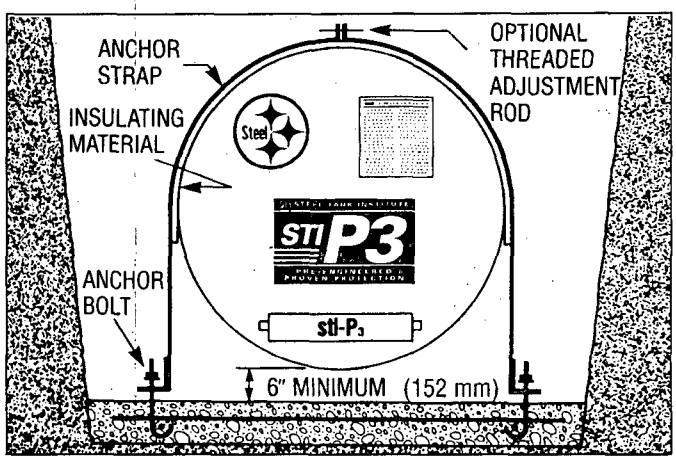
1.2 Where anchoring by means of a concrete pad, the tank shall not be placed directly on the pad. Bedding material at least 6 inches (152.4 mm) deep must be spread evenly over the dimensions of the pad to separate the tank from the pad.





1.3 Bedding and backfill material shall consist of homogenous pea gravel, crushed stone, clean sand or natural earthen materials. Crushed stone, clean sand and natural earthen materials shall be capable of passing 100% through a 1/2 inch (13 mm) sieve and no more than 12% by dry weight through a #200 sieve (0.0029 inch (0.0754 mm)). Pea gravel shall be no larger than 3/4-inch (19 mm). The materials shall be free of all foreign materials, such as but not limited to, bricks, metals, concrete and plastics.

1.4 The backfill material may be from the tank site if it meets this description, or it may be delivered to the site from another source.



1.5 Sand or natural earthen materials used as backfill shall be placed into the excavation in 12-18 inch (305-458 mm) vertical lifts, compacted after each lift, at least 60% up the vertical height of the tank.

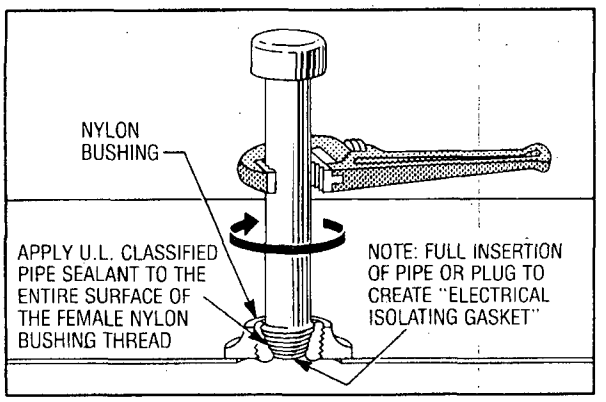
1.6 If earthen material from the site, or other earthen material, is to be used as bedding or backfill material, a minimum of four 1 cu.ft. samples shall be taken from different locations which are representative of the backfill material and the site. Samples shall be sieved to determine if the material complies with this specification.

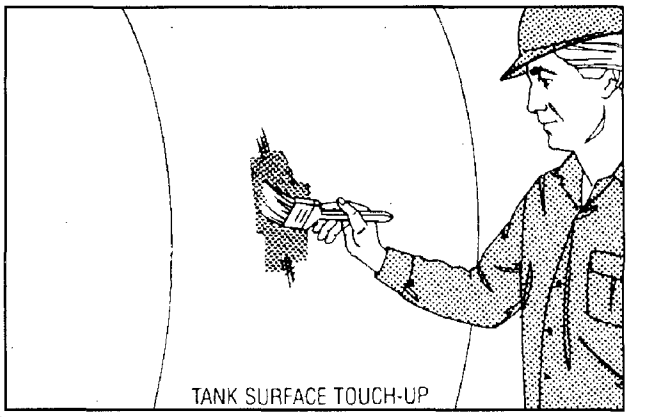
1.7 In a tidal area, the tank "bedding" material shall be crushed stone or pea gravel. Sand and natural earthen material may be used only if measures are taken to prevent washout of material during the design life of the system.

2.0 AIR TEST AT JOB SITE

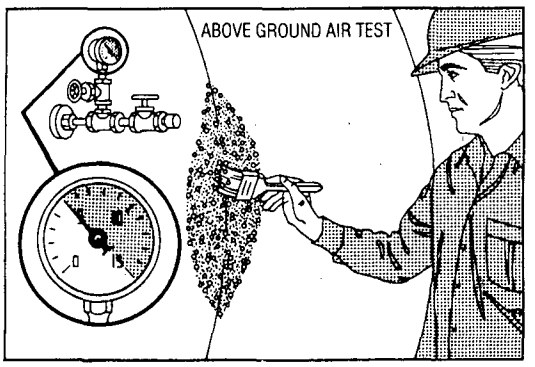
2.1 Temporary plugs and thread protectors installed by the manufacturer shall be removed. Apply compatible, non-hardening pipe sealant to internal bushing threads. Permanent metal plugs shall be installed at all unused openings.

2.2 The nylon bushings in sti-P_3® tanks shall not be removed from the unused openings. Plugs used to temporarily seal the tank for the above ground air test, but later removed for pipe installation, shall not be over tightened. Do not cross thread or damage the nylon bushings when replacing plugs or installing required tank piping.





2.3 Test pressure shall be maintained at, without exceeding, 5 psig (34.47 kpa) while a soap solution is applied to the area of pipe connections and welds.



2.4 Dual wall tanks shall require different air pressure testing procedures. Do not connect a high pressure air line directly to the interstitial monitoring port. A factory applied vacuum within the interstitial space can be used in lieu of, or in addition to, the air test procedure. Consult tank fabricator for air test recommendations. Do not apply a vacuum to the primary tank or a single wall tank. PEI/RP 100-00 also provides guidelines.

2.5 Take necessary safety precautions during air tests. Do not leave tanks unattended. Avoid standing at the head of the tank, especially while applying air pressure. Use an air-pressure relief valve.

3.0 COATING INSPECTION

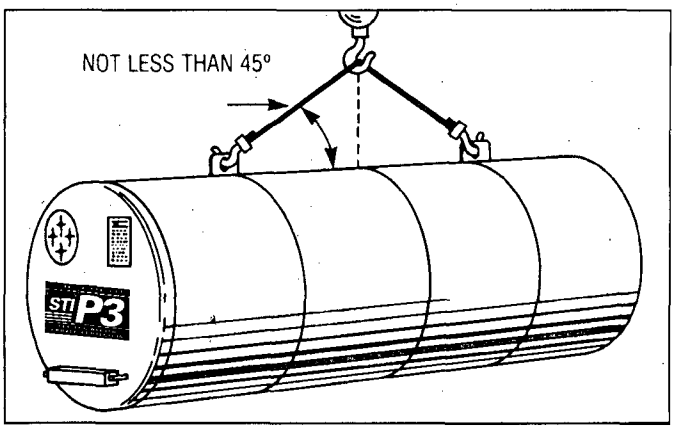
3.1 Before placing the tank in the excavation, all dirt clods and similar foreign matter shall be cleaned from the tank, and areas of coating damage shall be repaired with touch-up coating kit provided.

3.2 Clean damaged coating areas through removal of surface rust, dirt, contaminants and disbonded coating prior to application of touch-up coating (see SSPC SP-2 "Hand Tool Cleaning" or SP-3 "Power Tool Cleaning" for additional guidance).

4.0 TANK HANDLING

4.1 Controlled off-loading of the tank shall be allowed.

4.2 Equipment to lift the tank shall be of adequate size to lift and lower the tank without dragging or dropping to ensure there is no damage to the tank or the coating.

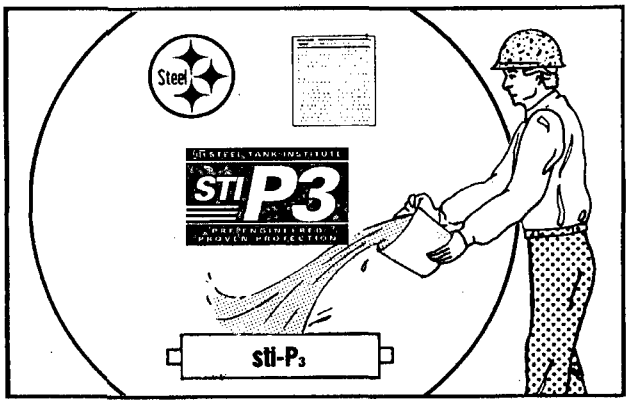


4.3 Tanks shall be carefully lifted and lowered by use of cables or chains of adequate length attached to the lifting lugs provided. A spreader bar shall be used where necessary. Under no circumstances shall chains or slings be used around the tank shell.

5.0 ANODE INTEGRITY

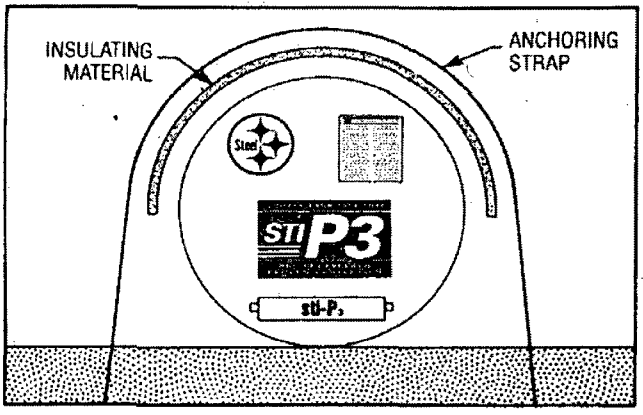
5.1 sti-P3® tanks may be equipped with either zinc or magnesium anodes. Whereas magnesium anodes are designed only for installation in soil resistivities of 2000 ohms-cm or greater, zinc anodes are effective in all soil resistivities.

5.2 After an sti-P_3® tank has been placed in the excavation, if anode is connected by a lead wire, attachment to the tank shall be checked to assure this connection has not been damaged. Where damaged, the connection must be re-established in strict accordance with this specification.

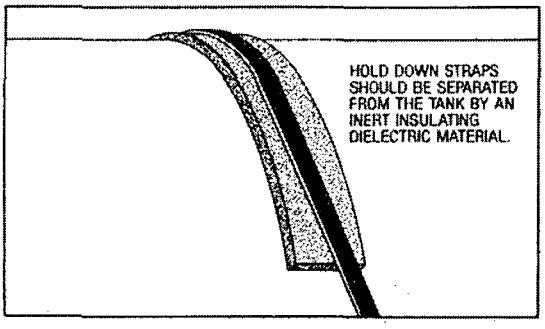


5.3 To assure immediate operation of cathodic protection system, each anode shall be thoroughly saturated with water at time of backfill operations.

6.0 ANCHORING



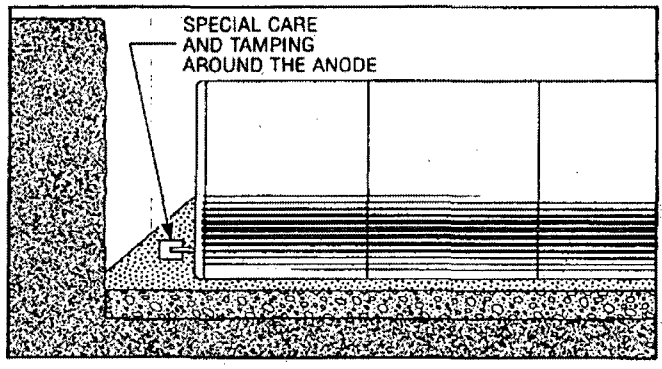
6.1 High water tables or partially flooded excavation sites exert significant buoyant forces on tanks. Buoyant forces are partially resisted by the weight of the tank, the backfill and the pavement atop the tank. Additional buoyant restraint, when required, shall be obtained by using properly designed hold-down straps in conjunction with concrete hold-down slabs or deadman anchors. The use of steel cable and/or round bar as hold-down straps on the tank is prohibited.



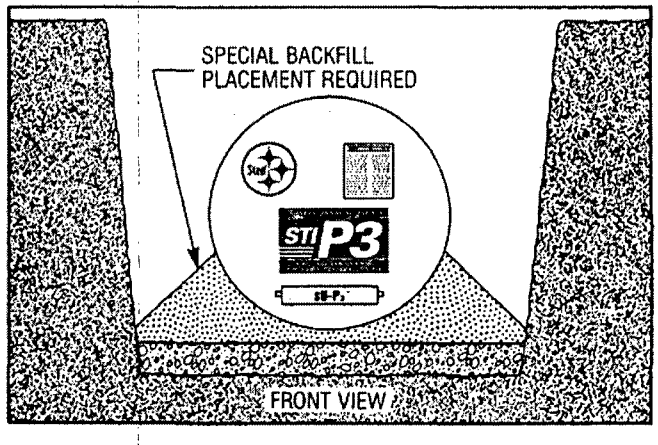
6.2 If a metallic hold-down strap is used, a pad of inert insulating di-electric material must be used to insulate the hold-down strap from the tank. The separating pad shall be wider than the hold-sown straps, which will prevent direct contact between the straps and the tank shell. This pad is not required if the hold-down strap is fabricated from non-conductive material.

6.3 Ballasting the tank may be necessary. When water is used as the ballast material, it shall only be potable water and shall not remain in the tank longer than 60 days. During construction, adequately vent all tank spaces. If product is used as ballast, proper precautions must be taken to prevent fires, spills, leaks, and other associated accidents. Monitor product level frequently to ensure there has been no unaccounted loss of product. Do not over tighten hold-down straps beyond snug and do not re-tighten hold-down straps after ballasting.

7.0 BACKFILLING



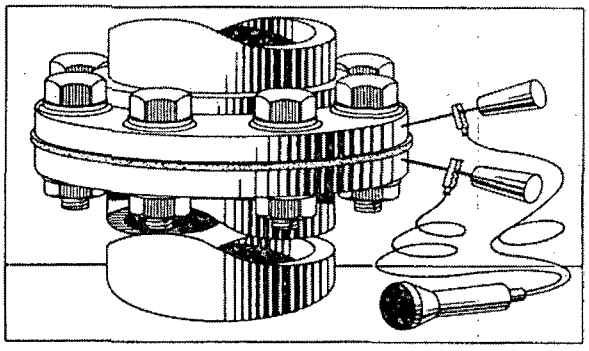
7.1 Homogeneous backfill similar to bedding material shall be placed carefully around the entire tank to create a uniform homogeneous environment. Avoid damage to coating especially where tamping is required.



7.2 Installing and tamping backfill along the bottom sides of the tank shall ensure that the tank is fully and evenly supported around the bottom quadrant.

7.3 Prior to backfilling to top of tank, all openings shall be visually inspected to assure that the sti-P_3® nylon bushings remain in place. Where flanged openings have been used, isolation of the flange gaskets shall be confirmed with a continuity tester. No current shall pass through the factory installed flange gaskets.

Isolation of the fittings is required to assure tank integrity.



7.4 If the tank is to be installed in the presence of an impressed current system, the effect of the system must be considered on the sti-P3® tank. The corrosion consultant must consider including the sti-P3® tank into the design of the impressed current system.

8.0 FINAL AIR TEST

8.1 Install required tank piping using compatible non-hardening sealant, taking care not to cross thread or damage the non-metallic bushings. Torque of 400 to 1,000 ft-lbs (542.3 to 1355.8 N-m) may be required to fully insert pipe.

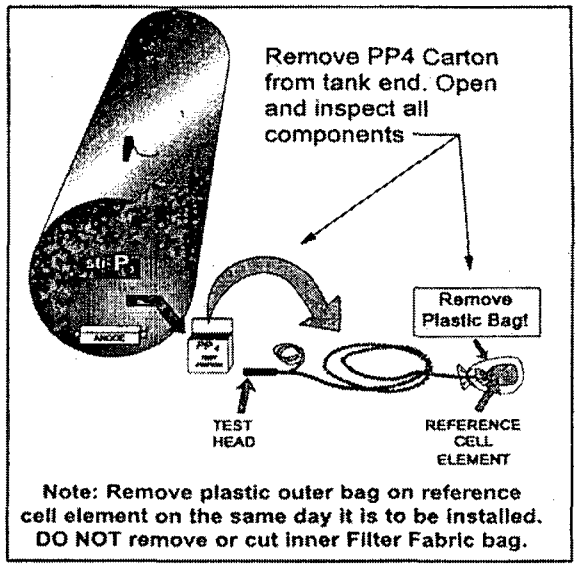
8.2 Where air or hydrostatic testing is required after installation, the pressure applied shall not be in excess of 5 pounds per-square-inch (34.5 kPa) as measured at the top of the tank. A soap solution shall be applied around pipe connectors while air test is being performed.

9.0 TANK MONITORING SYSTEM INSTALLATION

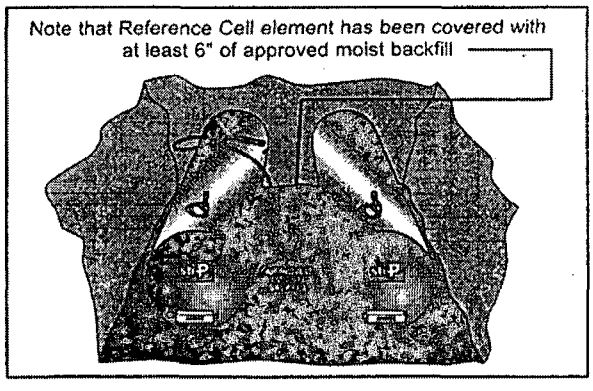
9.1 Each tank shall have a cathodic protection monitoring station (PP4®, PP2®, PP1®, or other) installed in such a way so that there will be at least a tank structure lead easily accessible and identifiable at the finish grade and provide easy placement of a reference electrode during monitoring.

9.2 If your tank is equipped with a Protection Prover 4 (PP4®), remove the unit from the shipping carton and inspect for damage. (See the separate manufacturers' installation instructions for specific details.)

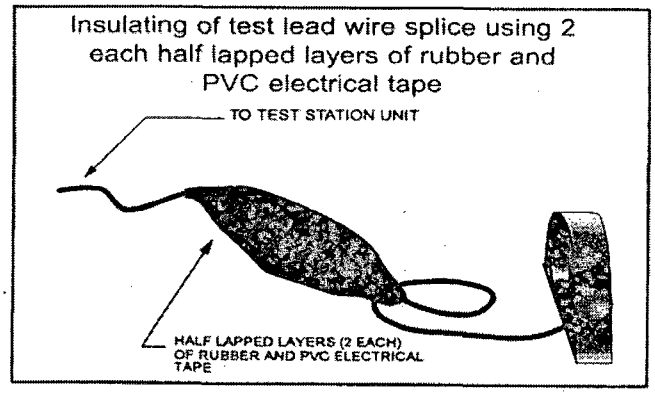
9.3 Prior to installation of the PP4®, remove the plastic bag from the reference cell element. After the tanks have been placed in the excavation, position the reference cell element midway from front to back between two tanks so that it is covered by 6 inches (152 mm) of moist bedding material.



9.4 Drape the flexible pipe up to the top of the tank and temporarily secure the pipe to prevent damage during backfill operations. Backfill the excavation until the tanks are almost covered.



9.5 Locate the PP4® test head in its approximate final position and support with a wooden stake or other similar device. Connect the appropriate tank test wire from the reference cell element to the black test lead already installed on the tank using the hardware supplied or by performing a field splice.



9.6 Assure that the wire connection is strong by simultaneously placing tension on the wire at either side of the connection point. Protect the wire connection from corrosion using the material

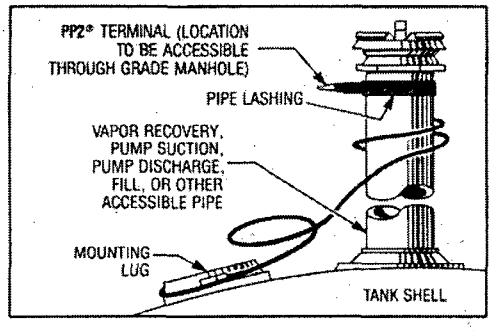
supplied with the PP4® or by wrapping the connection in half lapped layers of rubber and PVC electrical tape.

9.7 The test head shall be placed in a small grade manhole to protect it from vehicular traffic or set directly in the concrete covering for the excavation. During pouring of the at-grade slab protect the metal contact points on the test head from being covered by concrete.

9.8 If your tank is equipped with a Protection Prover 2® (PP2®), prior to completion of the backfill, the monitoring terminal located near the top of the tank must be positioned as follows:

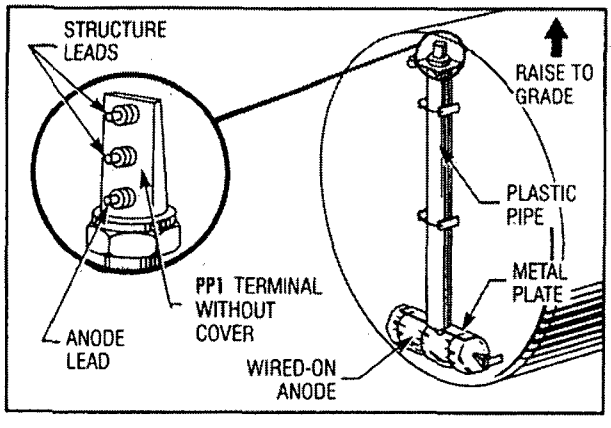
9.8.1 Select a terminal location on a pipe near grade that will be accessible through a grade manhole upon completion of installation.

9.8.2 Loosen the black nylon pipe lashing by releasing the locking tab. Uncoil enough lead wire from the tank mounting lug to reach the terminal location with an additional 4 feet (1.2 m) of slack.



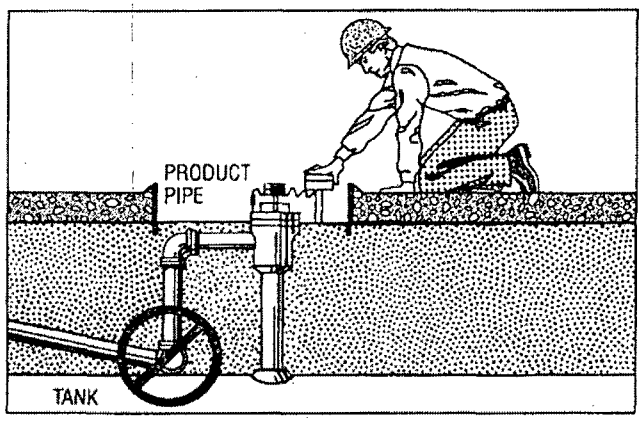
9.8.3 Secure the PP2® terminal to the pipe by tightening the black nylon pipe lashing. The lead wire terminations shall remain sealed.

9.8.4 Route wire to avoid strain or breakage during backfill. Do not cover PP2® terminal with backfill material.



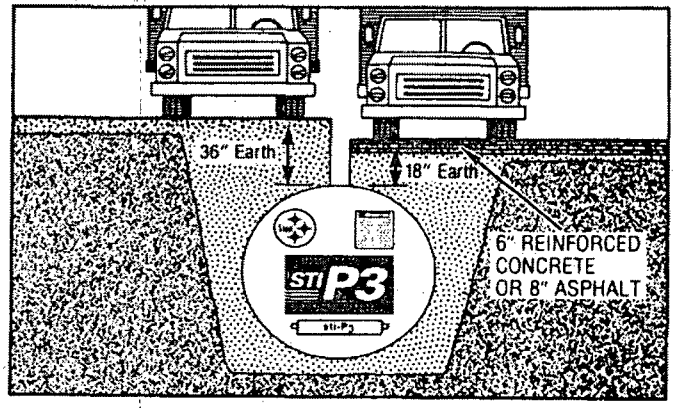
9.9 If the tank is equipped with a Protection Prover 1 (PP1®) monitoring system, which includes a monitoring test station mounted at the end of the tank, prior to any backfilling, extend the monitoring system to 4 inches (102 mm) below grade level without pulling it out of the mounting bracket. The PP1® test station shall be protected by a grade manhole of 7½ inches (191 mm) minimum diameter.

10.0 ELECTRICAL CONTINUITY TEST



10.1 Contact between the steel tank and all other structures such as external and internal piping, pumps, valves, gauge and monitoring equipment, and grounding systems, will nullify the cathodic protection design. Prior to backfill, a simple continuity test between the tank lead wire and each connected system will verify the electrical isolation. Continuity shall not be present. After backfill, continuity can be checked with a high impedance voltmeter by fixing a copper/copper sulfate reference cell in the soil and contacting all structures with the other voltmeter lead wire. Do not move the reference cell. Potential differences between the tank to soil and all other structures to soil must exceed 10 millivolts to verify electrical isolation.

11.0 FINAL BACKFILL

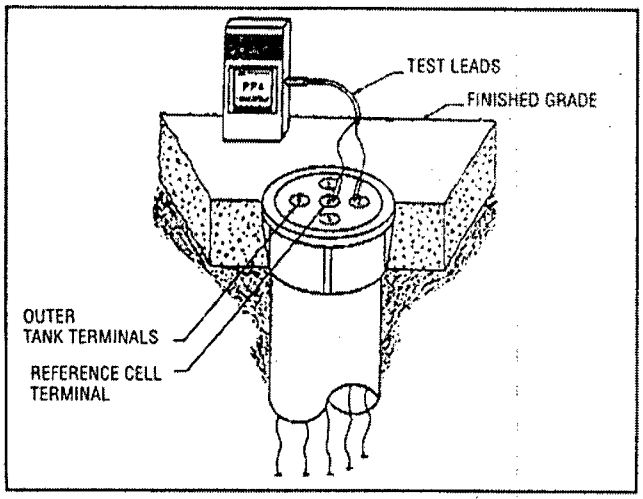


11.1 Homogeneous backfill shall be deposited carefully around the tank and to a depth of at least one foot (305mm) over the tank. (See NFPA 30 and state or local codes for minimum depth of cover required).

12.0 POST-INSTALLATION CATHODIC PROTECTION MONITORING

12.1 All tanks must be monitored to assure proper installation and ensuing cathodic protection of the tank. Before pouring concrete or asphalt pad atop

tank, a tank to soil potential reading with a high impedance voltmeter and copper/copper sulfate reference electrode must be taken. Reference electrode shall be placed in moist soil directly above the tank. A minimum reading of -850 millivolts should be obtained to indicate that the tank anodes are activated. **Record reading on installer information card and other permanent files.**



12.2 If the tank is connected to a PP4® test station the cathodic protection can be easily verified using a high impedance digital volt-meter. Touch the meter probes to the appropriate test head terminals as shown in the diagram above. As stated in 12.1, a minimum reading of -850 millivolts should be obtained.

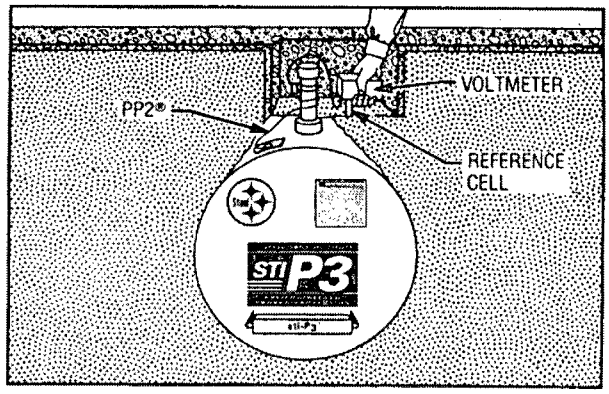
13.0 OPERATING LIMITATIONS

Operation of the tank above 120°F (49°C) requires the use of specific components and materials. The tank manufacturer must be notified, prior to tank use, of the owner's intent to operate this tank above 120°F (49°C) so that proper components and materials can be incorporated.

13.1 When the product stored is heated, the temperature inside the tank shall be constantly monitored to assure the maximum allowable temperature) is not exceeded.

14.0 MAINTENANCE

14.1 The primary tank shall be inspected monthly for the presence of water. Inspection shall take place at the lowest possible points inside the primary tank. Remove any water found. Water and sediment in fuel can cause plugging of filters. Also, bacterial growth, originating from the fuel, can cause filters to plug and corrosion of tanks and lines. For procedures on how to check for the presence of water and removal of water, refer to API Recommended Practice 1621, Appendix D and API Standard 2610. Another source of information is a report by the US Department of Energy, Brookhaven National Laboratory BNL 48406, which provides information on methods to test for and remove water, test for bacterial presence in fuel, tank cleaning and fuel additives.



14.2 sti-P3® tanks shall be tested for cathodic protection at installation in 3 year intervals for the life of the installation and after any activity that might affect the CP system. sti-P3® tanks which might otherwise be classified as ACT-100® composite tanks, due to factory attachment of anodes, do not require testing every third year. In addition, double-wall sti-P3®systems that use interstitial monitoring that is capable of detecting a breach of either tank wall, do not require testing every third year. (See EPA UST Technical Compendium for complete details www.epa.gov/swerust1/compend/nus18lh.pdf). Follow applicable local, state, and federal regulations for any additional requirements. Reference NACE RP-0285 for more specifics on protection criteria.

14.3 Tank must be installed within one year of delivery from tank manufacturer. If tank is not installed within this time period, contact tank manufacturer to recertify the tank.

Disclaimer

These instructions are intended only as an aid to tank installers who are knowledgeable and experienced in underground tank installation. Compliance herewith does not necessarily meet the requirements of applicable federal, state and local laws, regulations and ordinances concerning tank installation. STI makes no warranties, express or implied, including but not limited to, any implied warranties of merchantability or fitness for a particular purpose, as a result of these installation instructions.

Steel Tank Institute

CATHODICALLY PROTECTED UNDERGROUND STORAGE TANKS

STEEL TANK INSTITUTE STI P3 PRE-ENGINEERED PROVEN PROTECTION

INSTALLATION CHECKLIST

R821-01

MAY 2001

Owner of Tank:_____
Location of Tank:_____
_____

sti-P3® Label No: _____
Date: _____

CHECK( )

HANDLING
The handling equipment is of adequate size and capacity to lift and lower the tank without dragging or dropping. _____

The repair of any damaged laminate areas has been made in accordance with installation instructions. _____

Plastic wrap has been removed from the weld-on zinc anode._____

EXCAVATION
the site has been excavated deep enough to enable 1 foot of compacted clean sand or gravel to act as bedding material between native soil and tank when anchoring is not required._____

Burial depths meet minimum code requirements (such as NFPA 30). _____

TESTING
The tank has been air-tested at 5 psig (kPa) while applying soap solution onto weld seams and fittings to check or leaks._____
OR
a vacuum test has been performed in accordance with the fabricator's instructions. _____

All local and state testing requirements have been performed._____

ANCHORING (check one)
Not applicable to this site. _____
Deadman anchors used. _____
Concrete pad. _____
Soil and pavement overburden will hold down tank (reference PEI/RP 100). _____

When anchoring with a concrete hold down pad, a minimum 6 inch (152.4 mm) layer of pea over the concrete pad dimensions to separate tank from pad. _____

When deadman anchors or hold down pads are used, hold down straps have been separated from the tank by an inert insulating dielectric material at least 1 inch (25.4 mm) wider than the steel hold down straps. _____

Tank is electrically isolated from the hold down strap. _____

CHECK ( )

BACKFILL
Homogenous backfill consisting of clean sand, pea gravel, #8 crushed stone or material earthen material has been used. _____

Backfill is the same material as bedding _____

Backfill has been placed along sides of tank to ensure full support along the tank's bottom quadrant. _____

PIPE CONNECTIONS
Electrical isolation of flanged connections has been verified with a continuity tester. _____

Prior to backfilling over tank top, but after piping to the tank, electrical isolation of tank from all equipment has been verified.
No continuity shall be present. _____

TANK MONITORING
The cathodic protection monitoring station has been installed and brought to grade and access to the soil above the tank has been provided.. _____

Verify operation of the cathodic protection system by:
A tank to soil potential reading obtained with a high impedance voltmeter and a copper/copper sulfate reference electrode installed with the tank or placed immediately above the tank in soil.
Record reading: ___-_____millvolts

The tank owner has received the above information. _____

All other facets of tank installation have been made in accordance with sti-P3® instructions. _____

_____
Signature and Title of Installing Foreman and/or Project Engineer

_____

_____

_____
Installing Contractor

570 Oakwood Road
Lake Zurich IL 60047
Phone: 847-438-8265
Fax: 847-438-8766

Steel Tank Institute®

Note: This checklist includes certain key steps in the proper installation of the ACT-100-U tank and is intended only as an aid to tank installers who are knowledgeable and experienced in underground

Chavez, Carl J, EMNRD

From: tjmord@bh-corp.com
Sent: Thursday, April 17, 2008 4:48 PM
To: Chavez, Carl J, EMNRD
Cc: gstripling@bhep.com; sbrown@bhep.com; jconnor@bhenergy.com
Subject: Espinosa Canyon Amine Plant - Permit GW-356 Condition 9 Below Grade Tank Approval Request
Attachments: P3 Installation Instructions.pdf; 560 Double Wall P3.pdf

Carl, thanks for talking with me today on the phone. As you requested, I am providing email documentation on our request for underground tank installation approval (Espinosa Canyon Amine Plant Water Discharge Permit GW-356 Condition 9).

As I described to you on the phone, on 4/14/08 we completed installation of an underground storage tank to replace an identical existing underground storage tank. The existing tank was discovered to contain fluid between the inner and outer shell during our permit required routine monthly inspection (upon excavation, no soil contamination was detected around the outer shell). I apologize for not providing this request for approval prior to the installation, it was a permit oversight that was not discovered until I reviewed the permit to determine if tank replacement notification was required.

Please review the attached documentation on the installed tank and the installation instructions. To complete our compliance records, please provide an approval/disapproval response for this equipment. We will continue our routine monthly monitoring of our underground tanks per our written procedures.

If you have any further questions, please give me a call or send me an email.

Thank you,

Tim Mordhorst, P.E.
Black Hills Corporation
605.721.2181