



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY	
General Reference 287.54				Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (05-005) well pad site located at 1081 Wolfe Hill Road, Orwell Township, Bradford County, PA. Waste is stored in containers on site.					
Municipality Orwell		County Bradford		State PA	
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	996	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a.	pH Range 6.26 to 8.77 (based on analyses or knowledge)				
b.	Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)				
c.	Physical Appearance Color Greyish Black Odor Earthy/ slight petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments				
2. CHEMICAL ANALYSIS ATTACHMENTS					
a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100945		
b.	Facility Name	Cumberland County Landfill	
	Address Line 1	135 Vaughn Road	
	Address Line 1		
	Address City State ZIP	Newburg PA 17240	
	Municipality	Newburg Boro	County Cumberland
c.	Facility Contact Name	Dusty Hilbert	
	Title	Compliance Manager	
	Phone	(717) 729-5261	Email Address dhilbert@iswaste.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 21 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane PA 16735	
	Municipality	Sergeant Twp	County McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 779-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 205 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS																							
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																				
SECTION C. MANAGEMENT OF RESIDUAL WASTE																							
1. PROCESSING OR DISPOSAL FACILITY(IES)																							
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.																							
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010																						
b.	<table border="0"> <tr> <td>Facility Name</td> <td colspan="3">Hakes C&D Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">4376 Manning Ridge Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Painted Post</td> <td>NY</td> <td>14870</td> </tr> <tr> <td>Municipality</td> <td>Erwin Twp</td> <td>County</td> <td>Steuben</td> </tr> </table>			Facility Name	Hakes C&D Landfill			Address Line 1	4376 Manning Ridge Road			Address Line 1				Address City State ZIP	Painted Post	NY	14870	Municipality	Erwin Twp	County	Steuben
Facility Name	Hakes C&D Landfill																						
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Address Line 1																							
Address City State ZIP	Painted Post	NY	14870																				
Municipality	Erwin Twp	County	Steuben																				
c.	<table border="0"> <tr> <td>Facility Contact Name</td> <td colspan="3">Joseph Boyles</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(607) 937-6044</td> <td>Email Address</td> <td>joe.boyles@casella.com</td> </tr> <tr> <td></td> <td>(585) 466-7271</td> <td></td> <td></td> </tr> </table>			Facility Contact Name	Joseph Boyles			Title				Phone	(607) 937-6044	Email Address	joe.boyles@casella.com		(585) 466-7271						
Facility Contact Name	Joseph Boyles																						
Title																							
Phone	(607) 937-6044	Email Address	joe.boyles@casella.com																				
	(585) 466-7271																						
d.	Volume of waste shipped to processing or disposal facility in the previous year. 407 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003																						
b.	<table border="0"> <tr> <td>Facility Name</td> <td colspan="3">Hyland Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">6653 Herdman Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Angelica</td> <td>NY</td> <td>14709</td> </tr> <tr> <td>Municipality</td> <td>Angelica</td> <td>County</td> <td>Allegany</td> </tr> </table>			Facility Name	Hyland Landfill			Address Line 1	6653 Herdman Road			Address Line 1				Address City State ZIP	Angelica	NY	14709	Municipality	Angelica	County	Allegany
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Address Line 1	6653 Herdman Road																						
Address Line 1																							
Address City State ZIP	Angelica	NY	14709																				
Municipality	Angelica	County	Allegany																				
c.	<table border="0"> <tr> <td>Facility Contact Name</td> <td colspan="3">Larry Shilling</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(585) 466-7271</td> <td>Email Address</td> <td>larry.shilling@casella.com</td> </tr> </table>			Facility Contact Name	Larry Shilling			Title				Phone	(585) 466-7271	Email Address	larry.shilling@casella.com								
Facility Contact Name	Larry Shilling																						
Title																							
Phone	(585) 466-7271	Email Address	larry.shilling@casella.com																				
d.	Volume of waste shipped to processing or disposal facility in the previous year. 363 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
2. BENEFICIAL USE																							
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
	If "Yes", list the general permit number or approval number.																						
b.	Volume of waste beneficially used in the previous year.																						
	0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton		(check one)																				

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

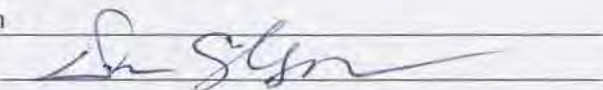
Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature



Date

2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10114173

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10114173

PAGE: 1 of 2

PO#: AF 78267

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: CMS

DATE: 11/30/2010 11:00

Page 1 of 2

SAMPLE: **Gel Cuttings**

Lab ID: 10114173-001A

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	469 mg/Kg	EPA 9071		12/08/10 14:20	12/08/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division

SAMPLE: **Gel Cuttings**

Lab ID: 10114173-001B

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	28.6 %	Moisture Calc.	0.01	11/30/10 9:40	12/01/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	11/30/10 14:00	11/30/10	IC-SA
pH	8.77@22.7°C	EPA 9045C		11/30/10 8:00	11/30/10	NFM-SA

SAMPLE: **Gel Cuttings**

Lab ID: 10114173-001C

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 11:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Sodium	640 mg/Kg	EPA 6010B	84.2	12/01/10 9:00	12/01/10	JRA-CV
Chloride	393 mg/Kg	EPA 300.0	49.5	11/30/10 14:49	12/01/10	HDP-CV

SAMPLE: **TCLP Leachate of Gel Cuttings**

Lab ID: 10114173-001E

Composite

SAMPLED BY: SG

Sample Time: 12/01/2010 7:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/01/10 12:50	12/01/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/01/10 12:30	12/01/10	JRA-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc., Center Valley, PA; SA = Benchmark Analytics, Inc., Sayre, PA

Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Cassie M. Davis

DATE: 12/10/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10114173

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10114173

PAGE: 2 of 2

PO#: AF 78267

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: CMS

DATE: 11/30/2010 11:00

Page 2 of 2

Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/02/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	12/01/10 12:30	12/01/10	JRA-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

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Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Carrie M. Davis

DATE: 12/10/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.

Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10120831

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10120831

PAGE: 1 of 1

PO#: AF78267

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: CMS

DATE: 12/06/2010 15:40

Page 1 of 1

SAMPLE: Inv. Cuttings

Lab ID: 10120831-001A

Composite

SAMPLED BY: SG

Sample Time: 12/06/2010 13:47

SLOG

Test	Result	Method	Analysis Start	Analysis End	Analyst*
Total Petroleum Hydrocarbons	94900 mg/Kg	EPA 9071	12/08/10 14:20	12/08/10	
Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division					

SAMPLE: Inv. Cuttings

Lab ID: 10120831-001B

Composite

SAMPLED BY: SG

Sample Time: 12/06/2010 13:47

SLOG

Test	Result	Method	Analysis Start	Analysis End	Analyst*
Moisture	16.4 %	Moisture Calc.	0.01 12/06/10 17:30	12/07/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1 12/06/10 17:10	12/06/10	IC-SA
pH	7.97@21.7°C	EPA 9045C	12/07/10 14:20	12/07/10	MED-SA

SAMPLE: TCLP Leachate of Inv.Cuttings

Lab ID: 10120831-001E

Composite

SAMPLED BY: SG

Sample Time: 12/07/2010 8:00

SLOG

Test	Result	Method	Analysis Start	Analysis End	Analyst*
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008 12/07/10 10:15	12/09/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 12/08/10 12:15	12/08/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00 12/08/10 12:15	12/08/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 12/08/10 12:15	12/08/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 12/08/10 12:15	12/08/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 12/08/10 12:15	12/08/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 12/08/10 12:15	12/08/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 12/08/10 12:15	12/08/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 12/08/10 12:15	12/08/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 12/08/10 12:15	12/08/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200 12/08/10 12:15	12/08/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Craig M. Davis

DATE: 12/10/2010

CHAIN OF CUSTODY

PAGE 1 OF 1

REPORT TO: Talisman / UEG
geowetlands@aol.com

CONTACT: Steve Gridley
PH# 607-731-0145
FAX#
BILL TO: Talisman

PD# AF78267
PROJECT DESCRIPTION
 05-005
SAMPLER SIGNATURE / AFFILIATION
 [Signature] UEG
CONTAINER **SAMPLING POINT**

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

W/O#: 10120831

DW DRINKING WATER SL SLUDGE
 GW GROUND WATER SO SOIL
 SW SURFACE WATER HZ HAZARDOUS
 WW WASTE WATER OTHER
 DE DEIONIZED WATER DI DISTILLED WATER

NG USED FOR:
☒ NYDOH ☒ NYDEC ☒ PADEP
☐ LANDFILL
☐ PERSONAL ☐ OTHER

**ARE SPECIAL DETECTION LIMITS
NEEDED:** ☐ YES ☒ NO
 IF YES, PLEASE ATTACH
IS A QC PACKAGE NEEDED?
☐ YES ☒ NO
 IF YES, PLEASE ATTACH REQUIREMENTS

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
 S SULFURIC ACID AS ASCORBIC ACID
 N NITRIC ACID AC ACETIC ACID
 SO₂ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
 Thio SODIUM THIOSULFATE ZN ZINC ACETATE
 - NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT
 PRESERVATIVE ADDED ON RECEIPT

Please fill out all
applicable areas
completely

LAB USE ONLY

1	Inv Cuttings	12/6	1347	SO	C	SO	N	TPH			
2								pH			
3								TCLP 8 RCRA Metals + Cu, Ni, Zn			
4								Free Liquids / % Moisture			
5	A- TPH										
6	B- pH, Free liquids, % moisture							Perform BTEX ONLY IF the TPH			
7	C- Amoms, metals							exceeds 100,000 mg/Kg			
8	D- Total Sample										
9	E- TCLP metals										
10								72 HOUR TURNAROUND			
11								DAY TURNAROUND			

LAB USE ONLY
DELIVERED BY: [Signature] **TEMPERATURE UPON RECEIPT:** 5 °C **ARRIVAL ON ICE (Y/N):** N

RELINQUISHED BY: [Signature]	DATE: 12/6/10	TIME: 1540	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY: [Signature]	DATE: 12/6/10	TIME: 1540

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10121729

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121729

PAGE: 1 of 3

PO#: AF78267

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 1 of 3

SAMPLE: **Inv. Cuttings**

Lab ID: 10121729-001A

Grab

SAMPLED BY: SG

Sample Time: 12/09/2010 13:28

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: **Inv. Cuttings**

Lab ID: 10121729-001C

Grab

SAMPLED BY: SG

Sample Time: 12/09/2010 13:28

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	1100 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV

SAMPLE: **Inv. Cuttings**

Lab ID: 10121729-001D

Grab

SAMPLED BY: SG

Sample Time: 12/09/2010 13:28

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
% Solids	74.47 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	9.31 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**

Lab ID: 10121729-001F

Grab

SAMPLED BY: SG

Sample Time: 12/11/2010 12:45

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Craig M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121729

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121729

PAGE: 2 of 3

PO#: AF78267

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 2 of 3

2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10 7:48	12/15/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA

SAMPLE: TCLP Leachate of Inv. Cuttings
SAMPLED BY: SG

Lab ID: 10121729-001G

Grab

Sample Time: 12/07/2010 8:00

SLOO

Test	Result	Method		Analysis Start	Analysis End	Analyst*
Strontium - TCLP extracted	< 0.050 mg/L	EPA 6010B	0.050	12/08/10 12:15	12/08/10	GSR-CV
Sample Note: Sample for TCLP extracted Strontium was received on 12/6/10 at 15:40 by CMS.						

SAMPLE: TCLP Leachate of Inv. Cuttings
SAMPLED BY: SG

Lab ID: 10121729-001H

Grab

Sample Time: 12/11/2010 12:45

SLOO

Test	Result	Method		Analysis Start	Analysis End	Analyst*
pH	6.26@16.6°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA

SAMPLE: ZHE Extract of Inv. Cuttings
SAMPLED BY: SG

Lab ID: 10121729-001I

Grab

Sample Time: 12/12/2010 13:10

SLOO

Test	Result	Method		Analysis Start	Analysis End	Analyst*
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10121729

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121729

PAGE: 3 of 3

PO#: AF78267

PWS ID#

PHONE: (607) 562-4000

FAX: (607) 562-4001

TEST REPORT

05-005

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 3 of 3

1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA

SAMPLE: ASTM Extract of Inv. Cuttings

Lab ID: 10121729-001J

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Chemical Oxygen Demand	178 mg/L	B HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA

SAMPLE: ASTM Extract of Inv. Cuttings

Lab ID: 10121729-001L

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
pH	7.34@16.7°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
Total Solids	1890 mg/L	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA

SAMPLE: Inv. Cuttings

Lab ID: 10121729-001M

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 10:25

SLOG

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	12/15/10 15:45	12/15/10	

Sample Note: Analysis performed by Analytical Services, Inc.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY

Benchmark

1 OF 1

REPORT TO: Talisman / UEG
geowetlands@aol.com

Ea
2566 Pennsylvan
Phone
Fax: (570) 888-0717

W/O#: 10121729

SPECIAL DETECTION LIMITS

NEEDED: ☐ YES / ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

RESULTS ARE BEING USED FOR:
☐ NYDOH ☒ NYDEC ☒ PADEP
LANDFILL Mostoller
☐ PERSONAL OTHER

CONTACT Steve Gridley

PH# 607-731-0145

FAX#

BILL TO: Talisman

PO# AF 78 267

DESCRIPTION
05-005
SAMPLER SIGNATURE / AFFILIATION
UEG
CONTAINER SAMPLING POINT

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT
PRESERVATIVE ADDED ON RECEIPT

Please fill out all
applicable areas
completely

LAB USE ONLY

1	Inv Cuttings	12/9	1328	10	C	SB	N	Ignitability, Reactive Sulfide & Cyanide
2					C			PCBs, Total Solids
3	A - Phenols, Ign.				G			Total Volatile Solids
4	C - Reactivity				C			Ammonia-Nitrogen
5	D - TS, TUS				C			Water Leaching Procedure: COD,
6	E - Total Sample	✓	✓	✓	C	✓	✓	Total Solids, Oil & Grease,
7	F - TCLP BNA, first.							
8	G - TCLP Arsenic Sr							
9	H - TCLP pH							36 HOUR TURNAROUND
10	I - TCLP Uols.							DAY TURNAROUND
11	J - ASTM COD, 24h							

LAB USE ONLY

RELINQUISHED BY:

DATE: 12/9/10

TIME: 1530

RECEIVED BY:

DATE: 1/1

TIME:

RELINQUISHED BY:

DATE: 1/1

TIME:

RECEIVED BY:

DATE: 1/1

TIME:

RELINQUISHED BY:

DATE: 1/1

TIME:

RECEIVED BY:

DATE: 12/9/10

TIME: 1545



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54	DEP USE ONLY
	Date Received & General Notes
Date Prepared/Revised February 11, 2011	

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Talisman Energy USA Inc.				
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A
Company Mailing Address Line 1 50 Pennwood Place		Company Mailing Address Line 2		
Company Address Last Line – City Warrendale	State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown	First Name Dina	MI	Suffix	
Municipality Warrendale	County Allegheny			
Contact Phone (724) 814-5321	Ext	Contact Email Address dybrown@talismanusa.com		
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the [REDACTED] (03-009) well pad site located at 1528 Sanitarium Hill Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.				
Municipality Columbia	County Bradford	State PA		

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
810	Drill cuttings (oil and gas)	3,476	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time

1. GENERAL PROPERTIES

a.	pH Range	8.70 to 10.94	(based on analyses or knowledge)	
b.	Physical State	<input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)		
c.	Physical Appearance	Color	Greyish Black	Odor
				Earthy/Slight Petroleum
		Number of Solid or Liquid Phases of Separation		
		One		
		Describe each phase of separation. Soil and Rock Fragments		

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica NY 14709	
	Municipality	Angelica County	Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,489 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post NY 14870	
	Municipality	Erwin Twp County	Steuben
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044	Email Address joe.boyles@casella.com
		(585) 466-7271	
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,188 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira	NY 14903
	Municipality	Elmira	County Chemung
c.	Facility Contact Name	Carla Canjar	
	Title		
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 724 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lake	
	Address Line 1		
	Address City State ZIP	Kane	PA 16735
	Municipality	Sergeant Twp	County McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 75 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature

Date

2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10043195

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10043195

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

██████ Rig 14

RECEIVED FOR LAB BY: TJC

DATE: 04/22/2010 15:05

Page 1 of 1

SAMPLE: **Air Cuttings**
SAMPLED BY: RP

Lab ID: 10043195-001A Composite
Sample Time: 04/21/2010 14:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/21/10 9:00	04/26/10	KW-CV
Sodium	466 mg/Kg-dry	EPA 6010B	127	04/23/10 16:05	04/26/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/24/10 9:55	04/26/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Zinc - TCLP extracted	0 mg/L	EPA 6010B	0.200	04/24/10 9:55	04/26/10	RMD-CV
pH	8.84 @ 24.3°C	EPA 9045D		04/26/10 12:05	04/26/10	NC-CV
Chloride	456 mg/Kg-dry	EPA 300.0	59.2	04/23/10 15:09	04/24/10	HDP-CV
Free Liquid	ABSENT	EPA 9095A		04/23/10 9:50	04/23/10	DTG-CV
Percent Moisture	15.6 %	SM2540G		04/23/10 16:00	04/26/10	DMB-CV

Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

SAMPLE: **Air Cuttings**
SAMPLED BY: Client

Lab ID: 10043195-001B Composite
Sample Time: 04/21/2010 14:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	383 mg/Kg	EPA 9071		04/23/10 11:00	04/23/10	

Sample Note: Analysis performed by Microbac -Erie Div.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Gail M. Davis

DATE: 4/26/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10043203

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10043203

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

██████ Rig 14

RECEIVED FOR LAB BY: TJC

DATE: 04/22/2010 15:05

Page 1 of 1

SAMPLE: **Air Cuttings**

Lab ID: 10043203-001A

Composite

SAMPLED BY: Client

Sample Time: 04/21/2010 12:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/21/10 9:00	04/26/10	KW-CV
Sodium	711 mg/Kg-dry	EPA 6010B	154	04/23/10 16:05	04/26/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/24/10 9:55	04/26/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Copper - TCLP extracted	0.178 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Nickel - TCLP extracted	0.124 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	04/24/10 9:55	04/26/10	RMD-CV
pH	10.94 @ 22.3°C	EPA 9045D		04/26/10 12:05	04/26/10	NC-CV
Chloride	4200 mg/Kg-dry	EPA 300.0	70.4	04/23/10 15:09	04/24/10	HDP-CV
Free Liquid	ABSENT	EPA 9095A		04/23/10 9:50	04/23/10	DTG-CV
Percent Moisture	29.0 %	SM2540G		04/23/10 16:00	04/26/10	DMB-CV

Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

SAMPLE: **Air Cuttings**

Lab ID: 10043203-001B

Composite

SAMPLED BY: Client

Sample Time: 04/21/2010 12:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 270 mg/Kg	EPA 9071	270	04/23/10 11:00	04/23/10	

Sample Note: Analysis performed by Microbac - Erie Div.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Chris M. Davis

DATE: 4/26/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10043205

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10043205

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

██████ Rig 14

RECEIVED FOR LAB BY: TJC

DATE: 04/22/2010 15:05

Page 1 of 1

SAMPLE: **Air Cuttings**

Lab ID: 10043205-001A

Composite

SAMPLED BY: RP

Sample Time: 04/21/2010 14:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/21/10 9:00	04/26/10	KW-CV
Sodium	244 mg/Kg-dry	EPA 6010B	125	04/23/10 16:05	04/26/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/24/10 9:55	04/26/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Copper - TCLP extracted	0.194 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/24/10 9:55	04/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/24/10 9:55	04/26/10	RMD-CV
Zinc - TCLP extracted	0.203 mg/L	EPA 6010B	0.200	04/24/10 9:55	04/26/10	RMD-CV
pH	8.70 @ 22.6°C	EPA 9045D		04/26/10 12:05	04/26/10	NC-CV
Chloride	< 58.3 mg/Kg-dry	EPA 300.0	58.3	04/23/10 15:09	04/24/10	HDP-CV
Free Liquid	ABSENT	EPA 9095A		04/23/10 9:50	04/23/10	DTG-CV
Percent Moisture	14.2 %	SM2540G		04/23/10 16:00	04/26/10	DMB-CV

Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

SAMPLE: **Air Cuttings**

Lab ID: 10043205-001B

Composite

SAMPLED BY: RP

Sample Time: 04/21/2010 14:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 230 mg/Kg	EPA 9071	230	04/23/10 11:00	04/23/10	

Sample Note: Analysis performed by Microbac - Erie Div.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 4/26/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10071885

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10071885

PAGE: 1 of 1

PO#: AF76760

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

Well

RECEIVED FOR LAB BY: WCB

DATE: 07/13/2010 13:15

Page 1 of 1

SAMPLE: **Inv. Cuttings**

Lab ID: 10071885-001A

Grab

SAMPLED BY: SG

Sample Time: 07/12/2010 14:20

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	101000 mg/Kg	EPA 9071		07/15/10 0:00	07/15/10	
Sample Note: Analysis performed by Microbac-Erie						

SAMPLE: **Inv. Cuttings**

Lab ID: 10071885-001B

Grab

SAMPLED BY: SG

Sample Time: 07/12/2010 14:20

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	40.0 %	Moisture Calc.	0.01	07/14/10 14:30	07/15/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/14/10 8:40	07/14/10	IC-SA
pH	9.43@22.8°C	EPA 9045C		07/14/10 12:23	07/14/10	DLM-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**

Lab ID: 10071885-001D

Grab

SAMPLED BY: SG

Sample Time: 07/12/2010 14:20

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	07/16/10 9:00	07/18/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/16/10 15:00	07/17/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Nickel - TCLP extracted	0.150 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/16/10 15:00	07/17/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 7/20/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					DEP USE ONLY	
General Reference 287.54					Date Received & General Notes	
Date Prepared/Revised February 11, 2011						
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale			State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina		MI	Suffix	
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Ext	Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (03-015) well pad site located at 368 Beaman Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.						
Municipality Columbia		County Bradford		State PA		
SECTION B. WASTE DESCRIPTION						
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame	
810	Drill cuttings (oil and gas)	5,721	<input type="checkbox"/> cu yd	<input type="checkbox"/> gal		
			<input type="checkbox"/> lb	<input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time	
1. GENERAL PROPERTIES						
a.	pH Range 8.07 to 9.76 (based on analyses or knowledge)					
b.	Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c.	Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments					
2. CHEMICAL ANALYSIS ATTACHMENTS						
a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS																							
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																				
SECTION C. MANAGEMENT OF RESIDUAL WASTE																							
1. PROCESSING OR DISPOSAL FACILITY(IES)																							
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.																							
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010																						
b.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Hakes C&D Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">4376 Manning Ridge Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Painted Post</td> <td>NY</td> <td>14870</td> </tr> <tr> <td>Municipality</td> <td>Erwin Twp</td> <td>County</td> <td>Steuben</td> </tr> </table>			Facility Name	Hakes C&D Landfill			Address Line 1	4376 Manning Ridge Road			Address Line 1				Address City State ZIP	Painted Post	NY	14870	Municipality	Erwin Twp	County	Steuben
Facility Name	Hakes C&D Landfill																						
Address Line 1	4376 Manning Ridge Road																						
Address Line 1																							
Address City State ZIP	Painted Post	NY	14870																				
Municipality	Erwin Twp	County	Steuben																				
c.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Contact Name</td> <td colspan="3">Joseph Boyles</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(607) 937-6044</td> <td>Email Address</td> <td>joe.boyles@casella.com</td> </tr> <tr> <td></td> <td>(585) 466-7271</td> <td></td> <td></td> </tr> </table>			Facility Contact Name	Joseph Boyles			Title				Phone	(607) 937-6044	Email Address	joe.boyles@casella.com		(585) 466-7271						
Facility Contact Name	Joseph Boyles																						
Title																							
Phone	(607) 937-6044	Email Address	joe.boyles@casella.com																				
	(585) 466-7271																						
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,212 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003																						
b.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Hyland Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">6653 Herdman Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Angelica</td> <td>NY</td> <td>14709</td> </tr> <tr> <td>Municipality</td> <td>Angelica</td> <td>County</td> <td>Allegany</td> </tr> </table>			Facility Name	Hyland Landfill			Address Line 1	6653 Herdman Road			Address Line 1				Address City State ZIP	Angelica	NY	14709	Municipality	Angelica	County	Allegany
Facility Name	Hyland Landfill																						
Address Line 1	6653 Herdman Road																						
Address Line 1																							
Address City State ZIP	Angelica	NY	14709																				
Municipality	Angelica	County	Allegany																				
c.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Contact Name</td> <td colspan="3">Larry Shilling</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(585) 466-7271</td> <td>Email Address</td> <td>larry.shilling@casella.com</td> </tr> </table>			Facility Contact Name	Larry Shilling			Title				Phone	(585) 466-7271	Email Address	larry.shilling@casella.com								
Facility Contact Name	Larry Shilling																						
Title																							
Phone	(585) 466-7271	Email Address	larry.shilling@casella.com																				
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,860 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
2. BENEFICIAL USE																							
a.	Has the waste been approved for beneficial use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", list the general permit number or approval number.																						
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)																						

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira NY 14903	
	Municipality	Elmira County	Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585)797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,633 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane PA 16735	
	Municipality	Sergeant Twp County	McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 16 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

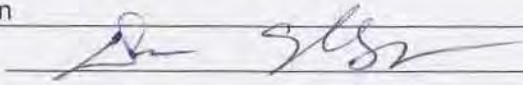
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date

2/25/14

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10052271

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10052271

PAGE: 1 of 2

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

UIH Well

RECEIVED FOR LAB BY: DLM2

DATE: 05/17/2010 12:23

Page 1 of 2

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10052271-001A

Composite

Sample Time: 05/12/2010 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	249 mg/Kg-dry	EPA 6010B	110	05/19/10 8:10	05/21/10	RMD-CV
Chloride	132 mg/Kg-dry	EPA 300.0	57.9	05/19/10 16:53	05/20/10	HDP-CV
Percent Moisture	13.7 %	SM2540G		05/19/10 15:40	05/20/10	NFM-SA

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10052271-001B

Composite

Sample Time: 05/12/2010 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	13.7 %	Moisture Calc.	0.01	05/19/10 15:40	05/20/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/19/10 11:00	05/19/10	IC-SA
pH	8.07@23.1°C	EPA 9045C		05/19/10 8:00	05/20/10	NFM-SA

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10052271-001C

Composite

Sample Time: 05/12/2010 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 254 mg/Kg	EPA 9071	254	05/18/10 11:30	05/18/10	

Sample Note: Analysis performed by Microbac- Erie

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY: SG

Lab ID: 10052271-001E

Composite

Sample Time: 05/12/2010 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/20/10 10:00	05/21/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/21/10 13:45	05/24/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/21/10 13:45	05/24/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/21/10 13:45	05/24/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/21/10 13:45	05/24/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/21/10 13:45	05/24/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/21/10 13:45	05/24/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Candice M. Davis

DATE: 5/25/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10052271

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10052271

PAGE: 2 of 2

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

JIH Well

RECEIVED FOR LAB BY: DLM2

DATE: 05/17/2010 12:23

Page 2 of 2

Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/21/10 13:45	05/24/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/21/10 13:45	05/24/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/21/10 13:45	05/24/10	GSR-CV
Zinc - TCLP extracted	< 0.2 mg/L	EPA 6010B	0.200	05/21/10 13:45	05/24/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 5/25/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10071890

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10071890
PAGE: 1 of 1
PO#: AF76802
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

Well

RECEIVED FOR LAB BY: CTM

DATE: 07/13/2010 14:55

Page 1 of 1

SAMPLE: **Inv. Cuttings** Lab ID: 10071890-001A Grab
SAMPLED BY: SG Sample Time: 07/12/2010 14:00
SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	97100 mg/Kg	EPA 9071	07/15/10 0:00	07/15/10	

Sample Note: Analysis performed by Microbac-Erie

SAMPLE: **Inv. Cuttings** Lab ID: 10071890-001B Grab
SAMPLED BY: SG Sample Time: 07/12/2010 14:00
SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Moisture	26.9 %	Moisture Calc.	07/14/10 14:30	07/15/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	07/14/10 8:45	07/14/10	IC-SA
pH	9.76@22.6°C	EPA 9045C	07/14/10 12:23	07/14/10	DLM-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings** Lab ID: 10071890-001D Grab
SAMPLED BY: SG Sample Time: 07/12/2010 14:00
SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	07/16/10 9:00	07/18/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Cadmium - TCLP extracted	0.108 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Copper - TCLP extracted	0.132 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Nickel - TCLP extracted	0.170 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV
Zinc - TCLP extracted	115 mg/L L	EPA 6010B	07/16/10 15:00	07/17/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 7/20/2010

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					DEP USE ONLY Date Received & General Notes	
General Reference 287.54						
Date Prepared/Revised February 11, 2011						
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale			State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI MI		Suffix	
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Ext	Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)?					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (01-047) well pad site located at 2196 Fallbrook Road, Armenia Township, Bradford County, PA. Waste is stored in containers on site.						
Municipality Armenia		County Bradford		State PA		
SECTION B. WASTE DESCRIPTION						
Residual Waste Code 810	Residual Waste Code Description Drill cuttings (oil and gas)		Amount 5,945	Unit of Measure <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		Time Frame <input type="checkbox"/> One Time
1. GENERAL PROPERTIES						
a.	pH Range 7.37 to 11.62 (based on analyses or knowledge)					
b.	Physical State		<input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)			
c.	Physical Appearance		Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments			
2. CHEMICAL ANALYSIS ATTACHMENTS						
a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica	NY 14709
	Municipality	Angelica	County Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,368 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post	NY 14870
	Municipality	Erwin Twp	County Steuben
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044	Email Address joe.boyles@casella.com
		(585) 466-7271	
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,789 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year.	0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)	

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira	NY 14903
	Municipality	Elmira	County Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585)797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 899 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 101243		
b.	Facility Name	Northern Tier Solid Waste Authority - Bradford County	
	Address Line 1	108 Steam Hollow Road	
	Address Line 1		
	Address City State ZIP	Troy	PA 16947
	Municipality	West Burlington	County Bradford
c.	Facility Contact Name	Charles Woodward	
	Title	Recycling Coordinator	
	Phone	(570) 297-4177	Email Address chuckwoodward@epix.net
d.	Volume of waste shipped to processing or disposal facility in the previous year. 868 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name <u>McKean County Landfill</u> Address Line 1 <u>19 Ness Lane</u> Address Line 1 _____ Address City State ZIP <u>Kane PA 16735</u> Municipality <u>Sergeant Twp</u> County <u>McKean</u>		
c.	Facility Contact Name <u>Mike Manderfeld</u> Title _____ Phone <u>(814) 778-9931</u> Email Address <u>manderfeld@gmail.com</u>		
d.	Volume of waste shipped to processing or disposal facility in the previous year. 21 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized.		
b.	Facility Name _____ Address Line 1 _____ Address Line 1 _____ Address City State ZIP _____ Municipality _____ County _____		
c.	Facility Contact Name _____ Title _____ Phone _____ Email Address _____		
d.	Volume of waste shipped to processing or disposal facility in the previous year. <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

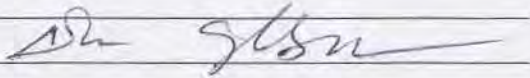
Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature



Date

2/25/11

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10030690

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10030690

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

NTSW TCLP Metals/TPH/pH/%Moisture

RECEIVED FOR LAB BY: WCB

DATE: 03/03/2010 9:38

Page 1 of 1

SAMPLE: Air Cuttings C-1

Lab ID: 10030690-001A

Grab

SAMPLED BY: SG

Sample Time: 03/02/2010 11:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
pH	11.62 @ 25.2°C	EPA 9045D		03/08/10 14:37	03/08/10	NC-CV
Chloride	476 mg/Kg	EPA 300.0	50.0	03/10/10 14:03	03/11/10	HDP-CV
Total Petroleum Hydrocarbons	< 170 mg/Kg	EPA 1664A	170	03/16/10 13:30	03/16/10	DTG-CV

SAMPLE: TCLP Leachate of Air Cuttings C-1

Lab ID: 10030690-001C

Grab

SAMPLED BY: SG

Sample Time: 03/02/2010 11:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	03/11/10 8:30	03/12/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	03/10/10 13:40	03/11/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	03/10/10 13:40	03/11/10	RMD-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Craig M. Davis

DATE: 3/17/2010

CHAIN OF CUSTODY

Benchmark Analytics, Inc.

PAGE 1 OF 1

Eastern Division
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

REPORT TO: Talisman

CONTACT: Steve Gudy

PH# 607-731-0145

FAX#

BILL TO: Talisman

PO#

P TION

SAMPLER SIGNATURE / AFFILIATION

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER

RESULTS ARE BEING USED FOR:

NYDOH NYDEC PADEP
LANDFILL
PERSONAL OTHER

ARE SPECIAL DETECTION LIMITS

NEEDED: YES NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

YES NO

IF YES, PLEASE ATTACH REQUIREMENTS

PWS ID#

Location

Sample Point

W/O#: 10030690

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON
RECEIPT

PRESERVATIVE
ADDED ON RECEIPT

Please fill
out all
applicable
areas
completely.

LAB USE ONLY

Container	Sample Point No./Type	DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB	SAMPLER INITIAL	PRESERVATIVE	Chlorine Residual Total <input type="checkbox"/> Free <input type="checkbox"/>	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
1	Air Cutoffs - C-1	3/2	1130	SO	G-56	N			TPH, pH, CI			001A-C
2									TCLP & RCRA Metals + Cu, Ni, Zn			
3												
4									A - TPH, pH, CI			
5									B - Total Sample			
6									C - TCLP Metals			
7												
8												
9												
10												
11												

Due: 3/18/10

LAB USE OF: Client

DELIVERED BY: TEMPERATURE UPON RECEIPT: 5 °C ARRIVAL ON ICE Y/N

RELINQUISHED BY: <u> </u>	DATE: <u>3/2/10</u> TIME: <u>938</u>	RECEIVED BY: <u> </u>	DATE: <u>1/1</u> TIME: <u> </u>
RELINQUISHED BY: <u> </u>	DATE: <u>1/1</u> TIME: <u> </u>	RECEIVED BY: <u> </u>	DATE: <u>1/1</u> TIME: <u> </u>
RELINQUISHED BY: <u> </u>	DATE: <u>1/1</u> TIME: <u> </u>	RECEIVED BY: <u>Debbie McCarty</u>	DATE: <u>3/3/10</u> TIME: <u>938</u>

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10031642

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10031642

PAGE: 1 of 3

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

01-047-01

RECEIVED FOR LAB BY: DLM2

DATE: 03/11/2010 13:21

Page 1 of 3

SAMPLE: Inv. Cuttings

Lab ID: 10031642-001B

Composite

SAMPLED BY: SG

Sample Time: 03/10/2010 15:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
pH	7.37 @ 24.9°C	EPA 9045D		03/15/10 10:50	03/15/10	SMH-CV
Total Petroleum Hydrocarbons	27000 mg/Kg	EPA 1664A		03/12/10 13:50	03/15/10	DTG-CV

SAMPLE: Inv. Cuttings

Lab ID: 10031642-001C

Composite

SAMPLED BY: SG

Sample Time: 03/10/2010 15:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Ignitability	Negative AS IS	SW846 1030		03/12/10 19:00	03/12/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: TCLP Leachate of Inv. Cuttings

Lab ID: 10031642-001D

Composite

SAMPLED BY: SG

Sample Time: 03/10/2010 15:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.2	03/14/10 8:30	03/14/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	03/12/10 14:00	03/14/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	100	03/12/10 14:00	03/14/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	1	03/12/10 14:00	03/14/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	03/12/10 14:00	03/14/10	RMD-CV
Copper - TCLP extracted	0.118 mg/L	EPA 6010B		03/12/10 14:00	03/14/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	03/12/10 14:00	03/14/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B		03/12/10 14:00	03/14/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	1	03/12/10 14:00	03/14/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	5	03/12/10 14:00	03/14/10	RMD-CV
Zinc - TCLP extracted	0.267 mg/L	EPA 6010B		03/12/10 14:00	03/14/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 3/15/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10031642

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10031642

PAGE: 2 of 3

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

01-047-01

RECEIVED FOR LAB BY: DLM2

DATE: 03/11/2010 13:21

Page 2 of 3

SAMPLE: **TCLP Leachate of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10031642-001E Composite
Sample Time: 03/10/2010 15:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	5	03/15/10 9:55	03/15/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	7.5	03/15/10 9:55	03/15/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	200	03/15/10 9:55	03/15/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	200	03/15/10 9:55	03/15/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	3	03/15/10 9:55	03/15/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	2	03/15/10 9:55	03/15/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.5	03/15/10 9:55	03/15/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	2	03/15/10 9:55	03/15/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	400	03/15/10 9:55	03/15/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	100	03/15/10 9:55	03/15/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.13	03/15/10 9:55	03/15/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.13	03/15/10 9:55	03/15/10	RHH-SA

Sample Note: Spike Recovery outside accepted recovery limits

SAMPLE: **ZHE Extract of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10031642-001F Composite
Sample Time: 03/10/2010 15:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Benzene	< 0.02 mg/L	EPA 8260B	0.5	03/13/10 7:34	03/13/10	RHH-SA
2-Butanone	< 0.20 mg/L	EPA 8260B	200	03/13/10 7:34	03/13/10	RHH-SA
Carbon tetrachloride	< 0.02 mg/L	EPA 8260B	0.5	03/13/10 7:34	03/13/10	RHH-SA
Chlorobenzene	< 0.02 mg/L	EPA 8260B	100	03/13/10 7:34	03/13/10	RHH-SA
Chloroform	< 0.02 mg/L	EPA 8260B	6	03/13/10 7:34	03/13/10	RHH-SA
1,4-Dichlorobenzene	< 0.02 mg/L	EPA 8260B	7.5	03/13/10 7:34	03/13/10	RHH-SA
1,2-Dichloroethane	< 0.02 mg/L	EPA 8260B	0.5	03/13/10 7:34	03/13/10	RHH-SA
1,1-Dichloroethene	< 0.02 mg/L	EPA 8260B	0.7	03/13/10 7:34	03/13/10	RHH-SA
Trichloroethene	< 0.02 mg/L	EPA 8260B	0.5	03/13/10 7:34	03/13/10	RHH-SA

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 3/15/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
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Phone: (570) 888-0169
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NAME: Steve Gridley
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ADDRESS: 337 Daniel Zenker Dr
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WO#: 10031642

PAGE: 3 of 3

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TEST REPORT

01-047-01

RECEIVED FOR LAB BY: DLM2

DATE: 03/11/2010 13:21

Page 3 of 3

Tetrachloroethene	< 0.02 mg/L	EPA 8260B	0.7	03/13/10 7:34	03/13/10	RHH-SA
Vinyl chloride	< 0.02 mg/L	EPA 8260B	0.2	03/13/10 7:34	03/13/10	RHH-SA

REMARKS:

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MANAGER

Carmie M. Davis

DATE: 3/15/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY	
General Reference 287.54				Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI 	Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321		Ext	Contact Email Address dybrown@talismanusa.com		
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No' describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (05-004) well pad site located at 2689 South Hill Road, Orwell Township, Bradford County, PA. Waste is stored in containers on site.					
Municipality Orwell		County Bradford		State PA	
SECTION B. WASTE DESCRIPTION					
Residual Waste Code 810	Residual Waste Code Description Drill cuttings (oil and gas)	Amount 1,770	Unit of Measure <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	Time Frame <input type="checkbox"/> One Time	
1. GENERAL PROPERTIES					
a. pH Range 8.76 to ---- (based on analyses or knowledge)					
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS																							
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																				
SECTION C. MANAGEMENT OF RESIDUAL WASTE																							
1. PROCESSING OR DISPOSAL FACILITY(IES)																							
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.																							
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010																						
b.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Hakes C&D Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">4376 Manning Ridge Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Painted Post</td> <td>NY</td> <td>14870</td> </tr> <tr> <td>Municipality</td> <td>Erwin Twp</td> <td>County</td> <td>Steuben</td> </tr> </table>			Facility Name	Hakes C&D Landfill			Address Line 1	4376 Manning Ridge Road			Address Line 1				Address City State ZIP	Painted Post	NY	14870	Municipality	Erwin Twp	County	Steuben
Facility Name	Hakes C&D Landfill																						
Address Line 1	4376 Manning Ridge Road																						
Address Line 1																							
Address City State ZIP	Painted Post	NY	14870																				
Municipality	Erwin Twp	County	Steuben																				
c.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Facility Contact Name</td> <td colspan="3">Joseph Boyles</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(607) 937-6044</td> <td>Email Address</td> <td>joe.boyles@casella.com</td> </tr> <tr> <td></td> <td>(585) 466-7271</td> <td></td> <td></td> </tr> </table>			Facility Contact Name	Joseph Boyles			Title				Phone	(607) 937-6044	Email Address	joe.boyles@casella.com		(585) 466-7271						
Facility Contact Name	Joseph Boyles																						
Title																							
Phone	(607) 937-6044	Email Address	joe.boyles@casella.com																				
	(585) 466-7271																						
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,247 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003																						
b.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Hyland Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">6653 Herdman Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Angelica</td> <td>NY</td> <td>14709</td> </tr> <tr> <td>Municipality</td> <td>Angelica</td> <td>County</td> <td>Allegany</td> </tr> </table>			Facility Name	Hyland Landfill			Address Line 1	6653 Herdman Road			Address Line 1				Address City State ZIP	Angelica	NY	14709	Municipality	Angelica	County	Allegany
Facility Name	Hyland Landfill																						
Address Line 1	6653 Herdman Road																						
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Address City State ZIP	Angelica	NY	14709																				
Municipality	Angelica	County	Allegany																				
c.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Facility Contact Name</td> <td colspan="3">Larry Shilling</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> <tr> <td>Phone</td> <td>(585) 466-7271</td> <td>Email Address</td> <td>larry.shilling@casella.com</td> </tr> </table>			Facility Contact Name	Larry Shilling			Title				Phone	(585) 466-7271	Email Address	larry.shilling@casella.com								
Facility Contact Name	Larry Shilling																						
Title																							
Phone	(585) 466-7271	Email Address	larry.shilling@casella.com																				
d.	Volume of waste shipped to processing or disposal facility in the previous year. 188 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
2. BENEFICIAL USE																							
a.	Has the waste been approved for beneficial use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", list the general permit number or approval number.																						
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)																						

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira	NY 14903
	Municipality	Elmira	County Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 181 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane	PA 16735
	Municipality	Sergeant Twp	County McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 154 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature

Date

2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10114174

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10114174

PAGE: 1 of 2

PO#: AF 78011

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

05-006

RECEIVED FOR LAB BY: CMS

DATE: 11/30/2010 11:00

Page 1 of 2

SAMPLE: **Gel Cuttings**

Lab ID: 10114174-001A

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 12:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 195 mg/Kg	EPA 9071	195	12/07/10 14:30	12/07/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: **Gel Cuttings**

Lab ID: 10114174-001B

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 12:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	29.8 %	Moisture Calc.	0.01	11/30/10 9:40	12/01/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	11/30/10 14:05	11/30/10	IC-SA
pH	8.76@22.8°C	EPA 9045C		11/30/10 8:00	11/30/10	NFM-SA

SAMPLE: **Gel Cuttings**

Lab ID: 10114174-001C

Composite

SAMPLED BY: SG

Sample Time: 11/29/2010 12:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	543 mg/Kg	EPA 6010B	85.1	12/01/10 9:00	12/01/10	JRA-CV
Chloride	316 mg/Kg	EPA 300.0	45.7	11/30/10 14:49	12/01/10	HDP-CV

SAMPLE: **TCLP Leachate Of Gel Cuttings**

Lab ID: 10114174-001E

Composite

SAMPLED BY: SG

Sample Time: 12/01/2010 7:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/01/10 12:50	12/01/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/01/10 12:30	12/01/10	JRA-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV

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Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Carrie M. Davis

DATE: 12/9/2010

LAB ID: 08-00380
LAB ID: 39-00401

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Eastern Division

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Phone: (570) 888-0169
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WO#: 10114174
PAGE: 2 of 2
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FAX: (607) 562-4001

TEST REPORT

05-006

RECEIVED FOR LAB BY: CMS

DATE: 11/30/2010 11:00

Page 2 of 2

Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/02/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/01/10 12:30	12/01/10	JRA-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/01/10 12:30	12/01/10	JRA-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	12/01/10 12:30	12/01/10	JRA-CV

REMARKS:

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Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Cassie M. Davis

DATE: 12/9/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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ANNUAL REPORT BY THE GENERATOR

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General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY

Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name

Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company

Talisman Energy Inc.

EPA Generator ID#

N/A

Company Mailing Address Line 1

50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line - City

Warrendale

State

PA

Zip+4

15086

Phone

(724) 814-5300

Ext

Company Contact Last Name

Brown

First Name

Dina

MI

Suffix

Municipality

Warrendale

County

Allegheny

Contact Phone

(724) 814-5321

Ext

Contact Email Address

dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)?

☐ Yes

☒ No

If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (03-067) well pad site located at 945 Hulslander Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.

Municipality

Columbia

County

Bradford

State

PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
810	Drill cuttings (oil and gas)	4,104	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time

1. GENERAL PROPERTIES

a. pH Range 5.40 to 11.31 (based on analyses or knowledge)

b. Physical State

☐ Liquid Waste (EPA Method 9095)

☒ Solid (EPA Method 9095)

☐ Gas (ambient temperature & pressure)

c. Physical Appearance

Color Greyish Black

Odor

Earthy/Slight Petroleum

Number of Solid or Liquid Phases of Separation One

Describe each phase of separation. Soil and Rock Fragments

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica NY 14709	
	Municipality	Angelica County	Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,180 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post NY 14870	
	Municipality	Erwin Twp County	Steuben
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044 (585) 466-7271	Email Address joe.boyles@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,256 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane	PA 16735
	Municipality	Sergeant Twp	County McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 598 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100945		
b.	Facility Name	Cumberland County Landfill	
	Address Line 1	135 Vaughn Road	
	Address Line 1		
	Address City State ZIP	Newburg	PA 17240
	Municipality	Newburg Boro	County Cumberland
c.	Facility Contact Name	Dusty Hilbert	
	Title	Compliance Manager	
	Phone	(717) 729-5261	Email Address dhilbert@iswaste.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 69 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS																							
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																				
SECTION C. MANAGEMENT OF RESIDUAL WASTE																							
1. PROCESSING OR DISPOSAL FACILITY(IES)																							
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.																							
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004																						
b.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Chemung County Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">1690 Lake Street</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Elmira</td> <td>NY</td> <td>14903</td> </tr> <tr> <td>Municipality</td> <td>Elmira</td> <td>County</td> <td>Chemung</td> </tr> </table>			Facility Name	Chemung County Landfill			Address Line 1	1690 Lake Street			Address Line 1				Address City State ZIP	Elmira	NY	14903	Municipality	Elmira	County	Chemung
Facility Name	Chemung County Landfill																						
Address Line 1	1690 Lake Street																						
Address Line 1																							
Address City State ZIP	Elmira	NY	14903																				
Municipality	Elmira	County	Chemung																				
c.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Contact Name</td> <td colspan="3">Carla Canjar</td> </tr> <tr> <td>Title</td> <td colspan="3">Environmental Manager</td> </tr> <tr> <td>Phone</td> <td>(585) 797-5941</td> <td>Email Address</td> <td>carla.canjar@casella.com</td> </tr> </table>			Facility Contact Name	Carla Canjar			Title	Environmental Manager			Phone	(585) 797-5941	Email Address	carla.canjar@casella.com								
Facility Contact Name	Carla Canjar																						
Title	Environmental Manager																						
Phone	(585) 797-5941	Email Address	carla.canjar@casella.com																				
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)																						
a.	Solid waste permit number(s) for processing or disposal facility being utilized.																						
b.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3"></td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Municipality</td> <td></td> <td>County</td> <td></td> </tr> </table>			Facility Name				Address Line 1				Address Line 1				Address City State ZIP				Municipality		County	
Facility Name																							
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Facility Contact Name																							
Title																							
Phone		Email Address																					
d.	Volume of waste shipped to processing or disposal facility in the previous year. <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)																						
2. BENEFICIAL USE																							
a.	Has the waste been approved for beneficial use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", list the general permit number or approval number.																						
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)																						

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

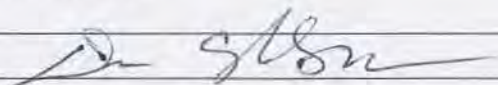
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10092049

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10092049
PAGE: 1 of 2
PO#: AF77903
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

01H

RECEIVED FOR LAB BY: TJC

DATE: 09/13/2010 17:12

Page 1 of 2

SAMPLE: Air Cuttings

Lab ID: 10092049-001A

Grab

SAMPLED BY: SG

Sample Time: 09/13/2010 14:33

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 380 mg/Kg	EPA 9071	380	09/19/10 10:20	09/19/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: Air Cuttings

Lab ID: 10092049-001B

Grab

SAMPLED BY: SG

Sample Time: 09/13/2010 14:33

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	9.60 %	Moisture Calc.	0.01	09/14/10 10:00	09/15/10	MED-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/14/10 15:10	09/14/10	IC-SA
pH	9.50@20.3°C	EPA 9045C		09/14/10 14:26	09/14/10	MED-SA

SAMPLE: Air Cuttings

Lab ID: 10092049-001C

Grab

SAMPLED BY: SG

Sample Time: 09/13/2010 14:33

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	686 mg/Kg-dry	EPA 6010B	125	09/16/10 8:30	09/16/10	RMD-CV
Chloride	92.6 mg/Kg-dry	EPA 300.0	55.3	09/15/10 15:09	09/16/10	HDP-CV
Percent Moisture	9.6 %	SM2540G		09/14/10 10:00	09/15/10	MED-SA

SAMPLE: TCLP Leachate of Air Cuttings

Lab ID: 10092049-001E

Grab

SAMPLED BY: SG

Sample Time: 09/15/2010 9:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/15/10 9:00	09/16/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/16/10 8:00	09/16/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/16/10 8:00	09/16/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10 8:00	09/16/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/16/10 8:00	09/16/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10 8:00	09/16/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/16/10 8:00	09/16/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 9/20/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10092049

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10092049

PAGE: 2 of 2

PO#: AF77903

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

PWS ID#

01H

RECEIVED FOR LAB BY: TJC

DATE: 09/13/2010 17:12

Page 2 of 2

Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10 8:00	09/16/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/16/10 8:00	09/16/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10 8:00	09/16/10	RMD-CV
Zinc - TCLP extracted	39.1 mg/L L	EPA 6010B	0.200	09/16/10 8:00	09/16/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 9/20/2010

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104052

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10104052
PAGE: 1 of 1
PO#: AF77904
PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

03-067

RECEIVED FOR LAB BY: SCP

DATE: 10/27/2010 14:15

Page 1 of 1

SAMPLE: **Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10104052-001A Grab

Sample Time: 10/26/2010 13:18

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	4900 mg/Kg	EPA 9071	170	10/28/10 14:20	10/28/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: **Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10104052-001B Grab

Sample Time: 10/26/2010 13:18

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	29.2 %	Moisture Calc.	0.01	10/29/10 10:30	11/01/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	10/28/10 11:00	10/25/10	IC-SA
pH	10.93@22.4°C	EPA 9045C		11/01/10 14:00	11/01/10	NFM-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10104052-001D Grab

Sample Time: 10/28/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	10/30/10 8:45	10/31/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	10/30/10 13:40	10/31/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	10/30/10 13:40	10/31/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Ann M. Davis

DATE: 11/1/2010

PAGE 1 OF 1

Ad Graphics Pricelino 570-888-0556

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10104066

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10104066

PAGE: 1 of 1

PO#: AF77903

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

03-067

RECEIVED FOR LAB BY: SCP

DATE: 10/27/2010 14:15

Page 1 of 1

SAMPLE: Inv. Clean Soil
SAMPLED BY: LS

Lab ID: 10104066-001A
Sample Time: 10/12/2010 11:40

Grab

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 150 mg/Kg	EPA 9071	150	10/28/10 14:20	10/28/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: Inv. Clean Soil
SAMPLED BY: LS

Lab ID: 10104066-001B
Sample Time: 10/12/2010 11:40

Grab

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	5.65 %	K Moisture Calc.	0.01	10/29/10 10:30	11/01/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	10/28/10 11:10	10/28/10	IC-SA
pH	8.58@22.4°C	EPA 9045C		11/01/10 14:00	11/01/10	NFM-SA

SAMPLE: Inv. Clean Soil
SAMPLED BY: LS

Lab ID: 10104066-001D
Sample Time: 10/28/2010 8:00

Grab

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	10/30/10 8:45	10/31/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	10/30/10 13:40	10/31/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/30/10 13:40	10/31/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/30/10 13:40	10/31/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	10/30/10 13:40	10/31/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

K Sample was received past holding time.

MANAGER

Cassie M. Davis

DATE: 11/1/2010

PAGE 1 OF 1

Ad Graphics Proling 570-888-00

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10120066

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10120066
PAGE: 1 of 2
PO#: AF77905
PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

03-067

RECEIVED FOR LAB BY: CMS

DATE: 12/01/2010 11:30

Page 1 of 2

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10120066-001A Composite

Sample Time: 10/27/2010 13:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	<108 mg/Kg	K EPA 9071	170	12/11/10 9:40	12/11/10	
Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division						

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10120066-001B Composite

Sample Time: 10/27/2010 13:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	12.9 %	K Moisture Calc.	0.01	12/02/10 8:30	12/03/10	IC-SA
Free Liquid	< 0.1 %	K EPA 9095A	0.1	12/02/10 8:05	12/02/10	IC-SA
pH	5.40@20.7°C	EPA 9045C		12/03/10 8:00	12/03/10	NFM-SA

SAMPLE: **Air Cuttings**
SAMPLED BY: SG

Lab ID: 10120066-001C Composite

Sample Time: 10/27/2010 13:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Sodium	< 80.4 mg/Kg	EPA 6010B	80.4	12/02/10 9:40	12/03/10	GSR-CV
Chloride	< 49.1 mg/Kg	K EPA 300.0	49.1	12/02/10 14:38	12/03/10	HDP-CV

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY: SG

Lab ID: 10120066-001E Composite

Sample Time: 12/02/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/02/10 9:00	12/03/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/03/10 9:15	12/03/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/03/10 9:15	12/03/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/03/10 9:15	12/03/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/03/10 9:15	12/03/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/03/10 9:15	12/03/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

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K Sample was received past holding time.

Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Cassie M. Davis

DATE: 12/14/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10120066

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10120066

PAGE: 2 of 2

PO#: AF77905

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

03-067

RECEIVED FOR LAB BY: CMS

DATE: 12/01/2010 11:30

Page 2 of 2

Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/03/10 9:15	12/03/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/03/10 9:15	12/03/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/03/10 9:15	12/03/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/03/10 9:15	12/03/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	12/03/10 9:15	12/03/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

K Sample was received past holding time.

Z Due to matrix bias, spike recovery was outside acceptance limits.

MANAGER

Carrie M. Davis

DATE: 12/14/2010

PAGE 1 OF 1

W/O#: 10120066

B40

ARE SPECIAL DETECTION LIMITS

NEEDED: ☐ YES / ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

RESULTS ARE BEING USED FOR:

NYDOH

NYDEC

PADEP

LANDFILL

PERSONAL

OTHER

DW	DRINKING WATER	SL	SLUDGE
GW	GROUND WATER	SO	SOIL
SW	SURFACE WATER	HZ	HAZARDOUS
WW	WASTE WATER	OTHER	
DE	DEIONIZED WATER	DJ	DISTILLED WATER

H	HYDROCHLORIC ACID	OH	SODIUM HYDROXIDE
S	SULFURIC ACID	AS	ASCORBIC ACID
N	NITRIC ACID	AC	ACETIC ACID
SO ₃	SODIUM SULFITE	NH ₄	AMMONIUM CHLORIDE
Thio	SODIUM THIOSULFATE	ZN	ZINC ACETATE
—	NONE	Hg	MERCURIC CHLORIDE

An incomplete chain of custody may delay the processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT
PRESERVATION

DEPOSITED ON RECEIPT
PRESERVATIVE ADDED ON F

Please fill out all applicable areas completely

LAB USE ONLY

1	Air Cuttings	10/27	Pro	SO	C	SO	N	TPH			-001A-E
2								pH, Chlorides, Sodium			
3								TCLP 8 RCRA Metals + Cu, Ni, Zn			
4	A-TPH							Free Liquids / % Moisture			
5	B-wet chem										
6	C-Anions, Metals							Perform BTEX ONLY IF the TPH			
7	D-Total Sample							exceeds 100,000 mg/Kg			
8	E-TCLP Metals										
9								72 HOUR TURNAROUND			
10								DAY TURNAROUND			
11								due 12/3/10			

LAB USE ONLY

DECEMBER 1991

TEMPERATURE UPON RECEIPT _____

1

ARRIVAL ON ICE Y/N

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121663

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121663
PAGE: 1 of 3
PO#: AF77906
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 1 of 3

SAMPLE: Air or Gel Cuttings
SAMPLED BY: SG

Lab ID: 10121663-001A Grab
Sample Time: 12/08/2010 18:17

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: Air or Gel Cuttings
SAMPLED BY: SG

Lab ID: 10121663-001C Grab
Sample Time: 12/08/2010 18:17

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	580 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV

SAMPLE: Air or Gel Cuttings
SAMPLED BY: SG

Lab ID: 10121663-001D Grab
Sample Time: 12/08/2010 18:17

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
% Solids	58.92 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	26.73 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA

SAMPLE: TCLP Leachate of Air or Gel Cuttings
SAMPLED BY: SG

Lab ID: 10121663-001F Grab
Sample Time: 12/11/2010 12:45

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

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B Analyte detected in the associated Method Blank

Q Due to matrix effects, not all quality control parameters met acceptance criteria

MANAGER

Amie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121663

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121663
PAGE: 2 of 3
PO#: AF77906
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 2 of 3

2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/14/10 8:37	12/14/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

SAMPLE: **TCLP Leachate of Air or Gel Cuttings**
SAMPLED BY: SG

Lab ID: 10121663-001H

Grab

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
pH	5.86@16.7°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA

SAMPLE: **ZHE Extract of Air or Gel Cuttings**
SAMPLED BY: SG

Lab ID: 10121663-001I

Grab

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

REMARKS:

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B Analyte detected in the associated Method Blank

Q Due to matrix effects, not all quality control parameters met acceptance criteria

MANAGER

Carrie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121663

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121663
PAGE: 3 of 3
PO#: AF77906
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

██████ O

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 3 of 3

Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA

SAMPLE: **ASTM Extract of Air or Gel Cuttings** Lab ID: 10121663-001J Grab
SAMPLED BY: SG Sample Time: 12/09/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Chemical Oxygen Demand	42 mg/L	B HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA

SAMPLE: **TCLP Leachate of Air or Gel Cuttings** Lab ID: 10121663-001K Grab
SAMPLED BY: SG Sample Time: 09/15/2010 9:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Strontium - TCLP extracted	1.24 mg/L	EPA 6010B	0.050	09/16/10 8:00	09/16/10	RMD-CV

Sample Note: Sample for TCLP extracted Strontium was received on 9/13/10 at 17:12 by TJC.

SAMPLE: **ASTM Extract of Air or Gel Cuttings** Lab ID: 10121663-001L Grab
SAMPLED BY: SG Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
pH	11.31@16.9°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
Total Solids	1860 mg/L	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA

SAMPLE: **Air or Gel Cuttings** Lab ID: 10121663-001M Grab
SAMPLED BY: SG Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	12/15/10 15:45	12/15/10	

Sample Note: Analysis performed by Analytical Services, Inc.

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B Analyte detected in the associated Method Blank

Q Due to matrix effects, not all quality control parameters met acceptance criteria

MANAGER

Cassie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY

REPORT TO: Talisman / UEG
geowetlands@aol.com

CONTACT Steve Gridley
PH# 607-731-0145
FAX#
BILL TO: Talisman

PO# AF 77906
DESCRIPTION
SAMPLER SIGNATURE / AFFILIATION
CONTAINER / SAMPLING POINT

Benchm
 E:
 2566 Pennsylvan
 Phon:
 Fax:

W/O#: 10121663

E 1 OF 1

SPECIAL DETECTION LIMITS

DED: ☐ YES ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
 AFTER COLLECTION

TRANSPORT
 TO
 LABORATORY
 IN COOLER
 WITH ICE

DW DRINKING WATER SL SLUDGE
 GW GROUND WATER SO SOIL
 SW SURFACE WATER HZ HAZARDOUS
 WW WASTE WATER OTHER
 DE DEIONIZED WATER DI DISTILLED WATER

RESULTS ARE BEING USED FOR:
☐ NYDOH ☒ NYDEC ☒ PADEP
 LANDFILL Mostoller
☐ PERSONAL OTHER

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
 S SULFURIC ACID AS ASCORBIC ACID
 N NITRIC ACID AC ACETIC ACID
 SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
 Thio SODIUM THIOSULFATE ZN ZINC ACETATE
 - NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
 processing of your sample(s).

ANALYSIS TO BE PERFORMED
 (PER CONTAINER)

COMPOSITED ON RECEIPT
 PRESERVATIVE ADDED ON RECEIPT

Please fill out all
 applicable areas
 completely

LAB USE ONLY

1	Air or Gel Cuttings	12/8/18/7	SO	C	SO	10	Ignitability, Reactive Sulfide & Cyanide
2				C			PCBs, Total Solids
3	A Phenol, Ign.			G			Total Volatile Solids
4	B Phenol			C			Ammonia-Nitrogen
5	B Reactivity CW & Sulfide			C			Water Leaching Procedure: COD,
6	D- 2VS			C			Total Solids, Oil & Grease,
7	E T. Sample						
8	F. TCLP 8270, Pools	J	ASTM COD, pH3, NO3				
9	G. TCLP Herbs Sr	K	Oil & Grease				36 HOUR TURNAROUND
10	H TCLP pH	L	T. Solid				DAY TURNAROUND
11	I TCLP VOLS	M	Chloride to TOX				

LAB USE ONLY

RELINQUISHED BY: <u>[Signature]</u>	DATE: 12/9/10	TIME: 1530	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY: <u>[Signature]</u>	DATE: 12/9/10	TIME: 1545



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

General Reference 287.54

Date Prepared/Revised February 11, 2011

DEP USE ONLY

Date Received & General Notes

SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name

Talisman Energy USA Inc.

If a Subsidiary, Name of Parent Company

Talisman Energy Inc.

EPA Generator ID#

N/A

Company Mailing Address Line 1

50 Pennwood Place

Company Mailing Address Line 2

Company Address Last Line – City

Warrendale

State

PA

Zip+4

15086

Phone

(724) 814-5300

Ext

Company Contact Last Name

Brown

First Name

Dina

MI

Suffix

Municipality

Warrendale

County

Allegheny

Contact Phone

(724) 814-5321

Ext

Contact Email Address

dybrown@talismanusa.com

Is the waste generated at the Company Mailing Address (noted above)?

☐ Yes

☒ No

If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-001) well pad site located at 273 Fellows Creek Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.

Municipality

Ward

County

Tioga

State

PA

SECTION B. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
810	Drill cuttings (oil and gas)	85	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time

1. GENERAL PROPERTIES

a.	pH Range	7.86	to	---	(based on analyses or knowledge)	
b.	Physical State	<div><input type="checkbox"/> Liquid Waste (EPA Method 9095)</div> <div><input checked="" type="checkbox"/> Solid (EPA Method 9095)</div> <div><input type="checkbox"/> Gas (ambient temperature & pressure)</div>				
c.	Physical Appearance	Color	Greyish Black		Odor	Earthy/Slight Petroleum
		Number of Solid or Liquid Phases of Separation				One
		Describe each phase of separation. Soil and Rock Fragments				

2. CHEMICAL ANALYSIS ATTACHMENTS

a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lane		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 85 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized.			
b.	Facility Name			
	Address Line 1			
	Address Line 1			
	Address City State ZIP			
	Municipality	County		
c.	Facility Contact Name			
	Title			
	Phone	Email Address		
d.	Volume of waste shipped to processing or disposal facility in the previous year. <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.			
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

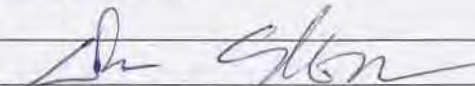
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10042642

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10042642

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 1

RECEIVED FOR LAB BY: WCB

DATE: 04/19/2010 13:54

Page 1 of 1

SAMPLE: **Clean Soil-Central Pit Area**

Lab ID: 10042642-001A

Grab

SAMPLED BY: SG

Sample Time: 04/15/2010 14:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	163 mg/Kg-dry	EPA 6010B	109	04/22/10 8:30	04/23/10	GSR-CV
Bromine	<4.6 mg/kg	HACH 8167	0.05	04/22/10 14:38	04/22/10	SMH-CV
pH	7.86 @ 20.9 °C	EPA 9045D		04/20/10 13:25	04/20/10	SMH-CV
Styrene	< 0.093 mg/Kg-dry	EPA 8260B	0.093	04/25/10 11:46	04/25/10	MTB-CV
Chloride	325 mg/Kg-dry	EPA 300.0	58.2	04/20/10 14:03	04/21/10	HDP-CV
Percent Moisture	14.1 %	SM2540G		04/20/10 9:00	04/21/10	DMB-CV

Sample Note: Limit of detection increased due to sample foaming

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 4/26/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 1 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 1 of 4

SAMPLE: Inv. Cuttings-Cellar 1

Lab ID: 10051471-001A

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	49.2 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:45	05/12/10	IC-SA
pH	12.06@24.2°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: Inv. Cuttings-Cellar 1

Lab ID: 10051471-001B

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 433 mg/Kg	EPA 9071	433	05/18/10 11:30	05/18/10	

Sample Note: Analysis performed by Microbac -Erie

SAMPLE: TCLP Leachate of Inv. Cuttings-Cellar 1

Lab ID: 10051471-001D

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	0.571 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Carrie M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 2 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 2 of 4

SAMPLE: Inv. Cuttings-Cellar 2
SAMPLED BY: LS

Lab ID: 10051471-002A

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	49.0 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:50	05/12/10	IC-SA
pH	11.82@23.6 °C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: Inv. Cuttings-Cellar 2
SAMPLED BY: LS

Lab ID: 10051471-002B

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 365 mg/Kg	EPA 9071	365	05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac - Erie

SAMPLE: TCLP Leachate of Inv. Cuttings-Cellar 2
SAMPLED BY: LS

Lab ID: 10051471-002D

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.159 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.108 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	0.458 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cami M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 3 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 3 of 4

SAMPLE: **Inv. Cuttings-Cellar 3**
SAMPLED BY: LS

Lab ID: 10051471-003A

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	45.9 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:55	05/12/10	IC-SA
pH	12.07@24.1°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: **Inv. Cuttings-Cellar 3**
SAMPLED BY: LS

Lab ID: 10051471-003B

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 279 mg/Kg	EPA 9071	279	05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac -Erie

SAMPLE: **TCLP Leachate of Inv. Cuttings-Cellar 3**
SAMPLED BY: LS

Lab ID: 10051471-003D

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.845 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	0.582 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.102 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	1.42 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cami M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 4 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 4 of 4

SAMPLE: Inv. Cuttings-Cellar 4
SAMPLED BY: LS

Lab ID: 10051471-004A

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	49.4 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 16:00	05/12/10	IC-SA
pH	11.89@23.7°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: Inv. Cuttings-Cellar 4
SAMPLED BY: LS

Lab ID: 10051471-004B

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	567 mg/Kg	EPA 9071		05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac - Erie

SAMPLE: TCLP Leachate of Inv. Cuttings-Cellar 4
SAMPLED BY: LS

Lab ID: 10051471-004D

Composite

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.190 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.106 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	3.15 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cassie M. Davis

DATE: 5/20/2010

2566 P.

W/O#: 10051471

ARE SPECIAL DETECTION LIMITS

NEEDED: ☐ YES / ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

Please fill out all applicable areas completely

LAB USE ONLY

An incomplete chain of custody may delay the processing of your sample(s).

**ANALYSIS TO BE PERFORMED
(PER CONTAINER)**

HOUR TURNAROUND

DAY TURNAROUND

Due 5/19/10

DELIVERED BY

TEMPERATURE UPON RECEIPT _____

18 °C ARRIVAL ON ICE Y

RELINQUISHED BY:

DATE: _____

TIME:

RECEIVED BY:

DATE:

TIME

RELINQUISHED BY:

DATE: _____

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY Date Received & General Notes	
General Reference 287.54					
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI MI	Suffix	
Municipality Warrendale			County Allegheny		
Contact Phone (724) 814-5321		Ext Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-002) well pad site located at 374 Fellows Creek Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality		Ward		County Tioga State PA	
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	2,906	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a. pH Range 8.04 to 12.07 (based on analyses or knowledge)					
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
b. A detailed description of the waste sampling method is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
d. The results of the hazardous waste determination is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004			
b.	Facility Name	Chemung County Landfill		
	Address Line 1	1690 Lake Street		
	Address Line 1			
	Address City State ZIP	Elmira	NY	14903
	Municipality	Elmira	County	Chemung
c.	Facility Contact Name	Carla Canjar		
	Title	Environmental Manager		
	Phone	(585) 797-5941	Email Address	carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,418 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003			
b.	Facility Name	Hyland Landfill		
	Address Line 1	6653 Herdman Road		
	Address Line 1			
	Address City State ZIP	Angelica	NY	14709
	Municipality	Angelica	County	Allegany
c.	Facility Contact Name	Larry Shilling		
	Title			
	Phone	(585) 466-7271	Email Address	larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,220 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
100361
- b. Facility Name McKean County Landfill
Address Line 1 19 Ness Lane
Address Line 1
Address City State ZIP Kane PA 16735
Municipality Sergeant Twp County McKean
- c. Facility Contact Name Mike Manderfeld
Title
Phone (814) 778-9931 Email Address manderfeld@gmail.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
181 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010
- b. Facility Name Hakes C&D Landfill
Address Line 1 4376 Manning Ridge Road
Address Line 1
Address City State ZIP Painted Post NY 14870
Municipality Erwin Twp County Steuben
- c. Facility Contact Name Joseph Boyles
Title
Phone (607) 937-6044 (585) 466-7271 Email Address joe.boyles@casella.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
87 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

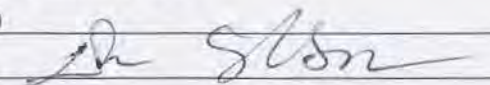
Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10040640

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040640

PAGE: 1 of 3

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR 5870200203

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 1 of 3

SAMPLE: In Cuttings - Bin
SAMPLED BY: DB

Lab ID: 10040640-001A

Grab

Sample Time: 04/05/2010 18:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
pH	8.11 @ 22.4°C	EPA 9045D		04/07/10 11:55	04/07/10	NC-CV
Total Petroleum Hydrocarbons	12000 mg/Kg	EPA 1664A		04/07/10 12:40	04/07/10	DTG-CV

SAMPLE: In Cuttings - Bin
SAMPLED BY: DB

Lab ID: 10040640-001B

Grab

Sample Time: 04/05/2010 18:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
% Solids	50.70 % Wght.	SM2540B		04/06/10 14:30	04/07/10	NFM-SA

SAMPLE: TCLP Leachate of In Cuttings - Bin
SAMPLED BY: Lab

Lab ID: 10040640-001D

Grab

Sample Time: 04/07/2010 6:45

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.008	04/07/10 11:30	04/07/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	100	04/07/10 11:45	04/07/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	1	04/07/10 11:45	04/07/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Nickel - TCLP extracted	0.165 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	1	04/07/10 11:45	04/07/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Zinc - TCLP extracted	44.2 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Cassie M. Davis

DATE: 4/8/2010

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10040640

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040640

PAGE: 2 of 3

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR 5870200203

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 2 of 3

SAMPLE: **TCLP Leachate of In Cuttings - Bin**
SAMPLED BY: Lab

Lab ID: 10040640-001E
Sample Time: 04/07/2010 6:45

Grab

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.05 mg/L	EPA 8270C	5	04/07/10 16:52	04/07/10	RHH-SA
1,4-Dichlorobenzene	< 0.05 mg/L	EPA 8270C	7.5	04/07/10 16:52	04/07/10	RHH-SA
o-Cresol	< 0.05 mg/L	EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
p-Cresol/m-Cresol	< 0.05 mg/L	EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
Hexachloroethane	< 0.05 mg/L	EPA 8270C	3	04/07/10 16:52	04/07/10	RHH-SA
Nitrobenzene	< 0.05 mg/L	S EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobutadiene	< 0.05 mg/L	EPA 8270C	0.5	04/07/10 16:52	04/07/10	RHH-SA
2,4,6-Trichlorophenol	< 0.05 mg/L	EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
2,4,5-Trichlorophenol	< 0.05 mg/L	EPA 8270C	400	04/07/10 16:52	04/07/10	RHH-SA
Pentachlorophenol	< 0.25 mg/L	EPA 8270C	100	04/07/10 16:52	04/07/10	RHH-SA
2,4-Dinitrotoluene	< 0.05 mg/L	EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobenzene	< 0.05 mg/L	EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA

SAMPLE: **ZHE Extract of In Cuttings - Bin**
SAMPLED BY: Lab

Lab ID: 10040640-001F
Sample Time: 04/07/2010 6:45

Grab

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Benzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Carbon tetrachloride - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Chlorobenzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	100	04/07/10 14:19	04/08/10	DN-CV
Chloroform - TCLP extracted	< 0.100 mg/L	EPA 8260B	3	04/07/10 14:19	04/08/10	DN-CV
1,4-Dichlorobenzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	7.5	04/07/10 14:19	04/08/10	DN-CV
1,2-Dichloroethane - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Candice M. Davis

DATE: 4/8/2010

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10040640

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040640

PAGE: 3 of 3

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR 5870200203

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 3 of 3

1,1-Dichloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Methyl ethyl ketone - TCLP extracted	< 0.500 mg/L	EPA 8260B	200	04/07/10 14:19	04/08/10	DN-CV
Tetrachloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Trichloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Vinyl chloride - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.2	04/07/10 14:19	04/08/10	DN-CV

Sample Note: Limit of detection increased due to sample foaming

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 4/8/2010

CHAIN OF CUSTODY

Benchmark Analytics, Inc.

PAGE _____ OF _____

REPORT TO: Talisman Energy

Eastern Division
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

ARE SPECIAL DETECTION LIMITS

NEEDED: YES / NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

YES NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
AFTER COLLECTION

RESULTS ARE BEING USED FOR:

NYDEC PADEP

LANDFILL

IL OTHER

ROXIDE
CID

PWS ID#

Location

Sample Point

W/O#: 10040640

CONTACT: Steve GridleyPH# 607-731-0145

FAX#

BILL TO: Talisman Energy

AFE 75561

PO# Patterson 56

PROJECT DESCRIPTION

DCNR 5870200203

SAMPLER SIGNATURE / AFFILIATION

Carmen Arroy

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

Container Sample Point No./Type

DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COM	SAMPLER INITIALS	PRESERVATIVE	Chlorine Residual Total <input type="checkbox"/>	Free <input type="checkbox"/>	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
1	4/9/10	18:40	SO C	N				TCLP RCRH Metals, Cu, Ni, Zn			001 D
2								TEL, N 2N			
3								TPH			001 A
4								PH			↓ A
5								% Solids			001 B
6								TCLP 8260-8270 * Due: 4/8/10			001 E, F
7								(F) (E)			
8								(24 hr Rush)			
9											
10											
11								Due: 4/7/10			

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

Please fill
out all
applicable
areas
completely.

LAB USE ONLY

DELIVERED BY

Client

TEMPERATURE UPON RECEIPT

15

°C

ARRIVAL ON ICE Y/N

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE:

TIME:

RECEIVED BY:

DATE:

TIME:

Carmen Arroy

4/16/10

8:45A

Debbie McCarty

4/16/10

8:45

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 1 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 1 of 4

SAMPLE: **Inv. Cuttings-Cellar 1**
SAMPLED BY: LS

Lab ID: 10051471-001A

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	49.2 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:45	05/12/10	IC-SA
pH	12.06@24.2°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: **Inv. Cuttings-Cellar 1**
SAMPLED BY: LS

Lab ID: 10051471-001B

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 433 mg/Kg	EPA 9071	433	05/18/10 11:30	05/18/10	

Sample Note: Analysis performed by Microbac -Erie

SAMPLE: **TCLP Leachate of Inv. Cuttings-Cellar 1**
SAMPLED BY: LS

Lab ID: 10051471-001D

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	0.571 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cassie M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 2 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 2 of 4

SAMPLE: Inv. Cuttings-Cellar 2

Lab ID: 10051471-002A

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	49.0 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:50	05/12/10	IC-SA
pH	11.82@23.6 °C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: Inv. Cuttings-Cellar 2

Lab ID: 10051471-002B

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 365 mg/Kg	EPA 9071	365	05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac - Erie

SAMPLE: TCLP Leachate of Inv. Cuttings-Cellar 2

Lab ID: 10051471-002D

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

SLOQ

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.159 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.108 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	0.458 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cami M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 3 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 3 of 4

SAMPLE: Inv. Cuttings-Cellar 3

Lab ID: 10051471-003A

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	45.9 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 15:55	05/12/10	IC-SA
pH	12.07@24.1°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: Inv. Cuttings-Cellar 3

Lab ID: 10051471-003B

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 279 mg/Kg	EPA 9071	279	05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac -Erie

SAMPLE: TCLP Leachate of Inv. Cuttings-Cellar 3

Lab ID: 10051471-003D

Composite

SAMPLED BY: LS

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.845 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	0.582 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.102 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	1.42 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cari M. Davis

DATE: 5/20/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10051471

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10051471

PAGE: 4 of 4

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2-TCLP 8260/8270 Only if TPH Exceeds 120,

RECEIVED FOR LAB BY: DLM2

DATE: 05/11/2010 17:05

Page 4 of 4

SAMPLE: **Inv. Cuttings-Cellar 4**
SAMPLED BY: LS

Lab ID: 10051471-004A

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	49.4 %	Moisture Calc.	0.01	05/14/10 8:00	05/18/10	KAL-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/12/10 16:00	05/12/10	IC-SA
pH	11.89@23.7°C	EPA 9045C		05/14/10 16:42	05/14/10	KAL-SA

SAMPLE: **Inv. Cuttings-Cellar 4**
SAMPLED BY: LS

Lab ID: 10051471-004B

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	567 mg/Kg	EPA 9071		05/17/10 10:30	05/17/10	

Sample Note: Analysis performed by Microbac - Erie

SAMPLE: **TCLP Leachate of Inv. Cuttings-Cellar 4**
SAMPLED BY: LS

Lab ID: 10051471-004D

Composite

Sample Time: 05/05/2010 19:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	05/14/10 9:30	05/18/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	05/17/10 11:00	05/18/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Copper - TCLP extracted	0.190 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Nickel - TCLP extracted	0.106 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	05/17/10 11:00	05/18/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	05/17/10 11:00	05/18/10	GSR-CV
Zinc - TCLP extracted	3.15 mg/L	EPA 6010B	0.200	05/17/10 11:00	05/18/10	GSR-CV

REMARKS:

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N Parameter not NELAC certified

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cami M. Davis

DATE: 5/20/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10053311

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10053311

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR Pad #2 (2)

RECEIVED FOR LAB BY: DLM2

DATE: 05/24/2010 12:00

Page 1 of 1

SAMPLE: **DCNR Pad #2 (2)**

Lab ID: 10053311-001B

Composite

SAMPLED BY: Lee Simons/Bishops

Sample Time: 05/24/2010 0:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Free Liquid	< 0.1 %	EPA 9095A	0.1	05/24/10 15:30	05/24/10	IC-SA
pH	8.04@21.0°C	EPA 9045C		05/24/10 15:30	05/25/10	NFM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 5/25/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10070630

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10070630

PAGE: 1 of 3

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2

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DATE: 07/06/2010 13:04

Page 1 of 3

SAMPLE: **DCNR Pad 2**

Lab ID: 10070630-001A

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

Test	Result		Method	SLOQ	Analysis Start	Analysis End	Analyst *
Methanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
Ethanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
Isopropanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
t-Butanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
n-Propanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
Isobutanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
n-Butanol	< 4 mg/Kg	N	Alcohols by FID	4	07/09/10 15:23	07/09/10	TTT-CV
Sodium	214 mg/Kg-dry		EPA 6010B	93.4	07/08/10 7:00	07/09/10	JRA-CV
Bromine	20.7 mg/kg	N	HACH 8167	0.05	07/07/10 10:11	07/07/10	SMH-CV
Styrene	< 0.410 mg/Kg-dry		EPA 8260B	0.410	07/07/10 15:29	07/08/10	DN-CV
Chloride	507 mg/Kg-dry		EPA 300.0	51.3	07/07/10 15:24	07/08/10	HDP-CV
Formaldehyde	< 1.0 mg/Kg-dry	N	NIOSH 3500	1.0	07/09/10 8:15	07/09/10	LTW-CV
Percent Moisture	2.5 %		SM2540G		07/07/10 9:00	07/08/10	NFM-SA

Sample Note: Limit of detection increased due to matrix interference and spike recovery data

SAMPLE: **DCNR Pad 2**

Lab ID: 10070630-001B

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

			SLOQ			
Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	2.45 %	Moisture Calc.	0.01	07/07/10 9:00	07/08/10	NFM-SA
Ammonia as N	5.1 mg/kg-dry	Lachat	1.0	07/08/10 10:42	07/08/10	RHN-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/07/10 8:15	07/07/10	IC-SA
pH	8.14@22.1°C	EPA 9045C		07/07/10 14:41	07/07/10	MED-SA
Phosphorus	< 21 mg/kg-dry	EPA 365.3	21	07/08/10 10:15	07/08/10	MED-SA

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER

Carrie M. Davis

DATE: 7/12/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10070630

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10070630

PAGE: 2 of 3

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2

RECEIVED FOR LAB BY: WCB

DATE: 07/06/2010 13:04

Page 2 of 3

SAMPLE: **DCNR Pad 2**

Lab ID: 10070630-001C

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Ethylene glycol	< 10.00 mg/Kg	Glycols by 8015	10.00	07/08/10 0:00	07/08/10	
Propylene glycol	< 10.00 mg/Kg	Glycols by 8015	10.00	07/08/10 0:00	07/08/10	

Sample Note: Analysis performed by Summit Environmental Technologies, Inc.

SAMPLE: **DCNR Pad 2**

Lab ID: 10070630-001D

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Phenolics, Total Recoverable	5.51 mg/Kg DRY	EPA 9065	1.26	07/08/10 8:45	07/08/10	

Sample Note: Analysis performed by QC Laboratories.

Sample Note: Holding times for preparation or analysis exceeded

SAMPLE: **DCNR Pad 2**

Lab ID: 10070630-001E

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	6630 mg/Kg	EPA 9071		07/07/10 0:00	07/07/10	

Sample Note: Analysis performed by Microbac-Erie

SAMPLE: **TCLP Leachate of DCNR Pad 2**

Lab ID: 10070630-001G

Composite

SAMPLED BY: LS

Sample Time: 06/30/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	07/08/10 11:00	07/09/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/08/10 11:45	07/09/10	JRA-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/08/10 11:45	07/09/10	JRA-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/08/10 11:45	07/09/10	JRA-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/08/10 11:45	07/09/10	JRA-CV
Copper - TCLP extracted	0.147 mg/L	EPA 6010B	0.100	07/08/10 11:45	07/09/10	JRA-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER

Candice M. Davis

DATE: 7/12/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10070630

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10070630

PAGE: 3 of 3

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR Pad 2

RECEIVED FOR LAB BY: WCB

DATE: 07/06/2010 13:04

Page 3 of 3

Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/08/10 11:45	07/09/10	JRA-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/08/10 11:45	07/09/10	JRA-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/08/10 11:45	07/09/10	JRA-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/08/10 11:45	07/09/10	JRA-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/08/10 11:45	07/09/10	JRA-CV

Sample Note: The temperature of the extraction room exceeded the range of $23 \pm 2^{\circ}\text{C}$

REMARKS:

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N Parameter is not NELAC certified

U Ammonia sample not distilled

MANAGER

Carrie M. Davis

DATE: 7/12/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					DEP USE ONLY	
General Reference 287.54					Date Received & General Notes	
Date Prepared/Revised February 11, 2011						
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300		Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix		
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Ext Contact Email Address dybrown@talismanusa.com				
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-004) well pad site located at 1247 Fallbrook Road, Ward Township, Tioga County, PA. Waste is stored in						
containers on site.						
Municipality Ward		County Tioga		State PA		
SECTION B. WASTE DESCRIPTION						
Residual Waste Code	Residual Waste Code Description		Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)		437	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES						
a. pH Range 7.47 to 8.63 (based on analyses or knowledge)						
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095)						
<input checked="" type="checkbox"/> Solid (EPA Method 9095)						
<input type="checkbox"/> Gas (ambient temperature & pressure)						
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum						
Number of Solid or Liquid Phases of Separation One						
Describe each phase of separation. Soil and Rock Fragments						
2. CHEMICAL ANALYSIS ATTACHMENTS						
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00001		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira	NY 14903
	Municipality	Elmira	County Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 326 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica	NY 14709
	Municipality	Angelica	County Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 61 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS																							
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																				
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																				
SECTION C. MANAGEMENT OF RESIDUAL WASTE																							
1. PROCESSING OR DISPOSAL FACILITY(IES)																							
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.																							
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010																						
b.	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Facility Name</td> <td colspan="3">Hakes C&D Landfill</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3">4376 Manning Ridge Road</td> </tr> <tr> <td>Address Line 1</td> <td colspan="3"></td> </tr> <tr> <td>Address City State ZIP</td> <td>Painted Post</td> <td>NY</td> <td>14870</td> </tr> <tr> <td>Municipality</td> <td>Erwin Twp</td> <td>County</td> <td>Steuben</td> </tr> </table>			Facility Name	Hakes C&D Landfill			Address Line 1	4376 Manning Ridge Road			Address Line 1				Address City State ZIP	Painted Post	NY	14870	Municipality	Erwin Twp	County	Steuben
Facility Name	Hakes C&D Landfill																						
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Municipality	Erwin Twp	County	Steuben																				
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Title																							
Phone	(607) 937-6044	Email Address	joe.boyles@casella.com																				
	(585) 466-7271																						
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2. BENEFICIAL USE																							
a.	Has the waste been approved for beneficial use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", list the general permit number or approval number.																						
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)																						

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

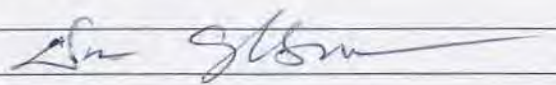
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 1 of 3

PO#: AF 76748

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 1 of 3

SAMPLE: **Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001A
Sample Time: 12/28/2010 11:40

Grab

SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	24000 mg/Kg	EPA 9071	12/29/10 15:10	12/29/10	
Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.					

SAMPLE: **Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001B
Sample Time: 12/28/2010 11:40

Grab

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	67.1 %	Moisture Calc.	0.01	01/03/11 11:30	01/04/11	KMF-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	12/28/10 17:10	12/28/10	IC-SA
pH	8.63@19.8°C	EPA 9045C		12/29/10 11:41	12/29/10	SG-SA

SAMPLE: **Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001C
Sample Time: 12/28/2010 11:40

Grab

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Sodium	400 mg/Kg	EPA 6010B	60.1	12/30/10 10:00	01/03/11	GSR-CV
Chloride	237 mg/Kg	EPA 300.0	47.4	01/04/11 12:43	01/05/11	HDP-CV
ASTM D Chloride	< 25.0 mg/L	EPA 300.0	25.0	01/07/11 15:12	01/07/11	HDP-CV
ASTM D Ph	8.31 @ 19.1°C	SM4500H+B		01/07/11 14:22	01/07/11	LTW-CV
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	01/06/11 9:28	01/07/11	HDP-CV
Reactive Sulfide	< 64 mg/Kg	SW846 7.3	64	01/10/11 8:55	01/10/11	LTW-CV

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001E
Sample Time: 12/29/2010 8:00

Grab

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/30/10 11:30	01/03/11	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/30/10 9:30	01/03/11	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
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PAGE: 2 of 3

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TEST REPORT

DCNR 006-04 Well Pad

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Page 2 of 3

Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Strontium - TCLP extracted	5.72 mg/L L	EPA 6010B	0.050	12/30/10 9:30	01/03/11	GSR-CV
Zinc - TCLP extracted	1.84 mg/L	EPA 6010B	0.200	12/30/10 9:30	01/03/11	GSR-CV

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001F

Grab

Sample Time: 01/06/2011 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	01/10/11 10:20	01/10/11	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	01/11/11 8:25	01/11/11	RHH-SA

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY:

Lab ID: 10124003-001G

Grab

Sample Time: 01/06/2011 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Candice M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 3 of 3

PO#: AF 76748

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PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 3 of 3

Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	01/07/11 9:22	01/07/11	CTM-SA

SAMPLE: Air Cuttings

Lab ID: 10124003-001H

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	01/11/11 15:00	01/11/11	
Sample Note: Analysis performed by Analytical Services, Inc.						

SAMPLE: Air Cuttings

Lab ID: 10124003-001I

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ignitability	Negative AS IS	SW846 1030		01/07/11 14:00	01/07/11	
Sample Note: Analysis performed by QC Laboratories.						

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY	
General Reference 287.54				Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-004) well pad site located at 1247 Fallbrook Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality Ward		County Tioga		State PA	
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame	
810	Drill cuttings (oil and gas)	437	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time	
1. GENERAL PROPERTIES					
a. pH Range 7.47 to 8.63 (based on analyses or knowledge)					
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00001		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira NY 14903	
	Municipality	Elmira County	Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 326 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica NY 14709	
	Municipality	Angelica County	Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 61 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010
- b. Facility Name: Hakes C&D Landfill
Address Line 1: 4376 Manning Ridge Road
Address Line 1:
Address City State ZIP: Painted Post NY 14870
Municipality: Erwin Twp County: Steuben
- c. Facility Contact Name: Joseph Boyles
Title:
Phone: (607) 937-6044 (585) 466-7271 Email Address: joe.boyles@casella.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
50 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
- b. Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:
- c. Facility Contact Name:
Title:
Phone: Email Address:
- d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R

☐ Other (specify) _____

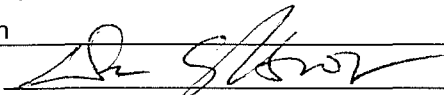
Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature



Date

2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 1 of 3

PO#: AF 76748

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 1 of 3

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001A

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	24000 mg/Kg	EPA 9071	12/29/10 15:10	12/29/10	
Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.					

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001B

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	67.1 %	Moisture Calc.	01/03/11 11:30	01/04/11	KMF-SA
Free Liquid	< 0.1 %	EPA 9095A	12/28/10 17:10	12/28/10	IC-SA
pH	8.63@19.8°C	EPA 9045C	12/29/10 11:41	12/29/10	SG-SA

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001C

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	400 mg/Kg	EPA 6010B	12/30/10 10:00	01/03/11	GSR-CV
Chloride	237 mg/Kg	EPA 300.0	01/04/11 12:43	01/05/11	HDP-CV
ASTM D Chloride	< 25.0 mg/L	EPA 300.0	01/07/11 15:12	01/07/11	HDP-CV
ASTM D Ph	8.31 @ 19.1°C	SM4500H+B	01/07/11 14:22	01/07/11	LTW-CV
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	01/06/11 9:28	01/07/11	HDP-CV
Reactive Sulfide	< 64 mg/Kg	SW846 7.3	01/10/11 8:55	01/10/11	LTW-CV

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10124003-001E

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	12/30/10 11:30	01/03/11	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	12/30/10 9:30	01/03/11	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	12/30/10 9:30	01/03/11	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	12/30/10 9:30	01/03/11	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

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Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
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WO#: 10124003

PAGE: 2 of 3

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TEST REPORT

DCNR 006-04 Well Pad

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Page 2 of 3

Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Strontium - TCLP extracted	5.72 mg/L	L EPA 6010B	0.050	12/30/10 9:30	01/03/11	GSR-CV
Zinc - TCLP extracted	1.84 mg/L	EPA 6010B	0.200	12/30/10 9:30	01/03/11	GSR-CV

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY: DJD

Lab ID: 10124003-001F
Sample Time: 01/06/2011 8:00

Grab

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	01/10/11 10:20	01/10/11	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	01/11/11 8:25	01/11/11	RHH-SA

SAMPLE: **TCLP Leachate of Air Cuttings**
SAMPLED BY:

Lab ID: 10124003-001G
Sample Time: 01/06/2011 8:00

Grab

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA

REMARKS:

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L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

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NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 3 of 3

PO#: AF 76748

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 3 of 3

Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	01/07/11 9:22	01/07/11	CTM-SA

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001H

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	01/11/11 15:00	01/11/11	

Sample Note: Analysis performed by Analytical Services, Inc.

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001I

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ignitability	Negative AS IS	SW846 1030		01/07/11 14:00	01/07/11	

Sample Note: Analysis performed by QC Laboratories.

REMARKS:

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L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54					DEP USE ONLY	
Date Prepared/Revised February 11, 2011					Date Received & General Notes	
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext	
Company Contact Last Name Brown		First Name Dina	MI	Suffix		
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Ext	Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)?					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-005) well pad site located at 151 Carey Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.						
Municipality		Ward	County	Tioga	State	PA
SECTION B. WASTE DESCRIPTION						
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame	
810	Drill cuttings (oil and gas)	5,297	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time	
1. GENERAL PROPERTIES						
a. pH Range		6.11 to 10.59 (based on analyses or knowledge)				
b. Physical State		<input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)				
c. Physical Appearance		Color Greyish Black Odor Earthy / Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments				
2. CHEMICAL ANALYSIS ATTACHMENTS						
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
b. A detailed description of the waste sampling method is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
d. The results of the hazardous waste determination is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.					<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003			
b.	Facility Name	Hyland Landfill		
	Address Line 1	6653 Herdman Road		
	Address Line 1			
	Address City State ZIP	Angelica	NY	14709
	Municipality	Angelica	County	Allegany
c.	Facility Contact Name	Larry Shilling		
	Title			
	Phone	(585) 466-7271	Email Address	larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 3,603 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010			
b.	Facility Name	Hakes C&D Landfill		
	Address Line 1	4376 Manning Ridge Road		
	Address Line 1			
	Address City State ZIP	Painted Post	NY	14870
	Municipality	Erwin Twp	County	Steuben
c.	Facility Contact Name	Joseph Boyles		
	Title			
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,066 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane PA 16735	
	Municipality	Sergeant Twp County McKean	
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 530 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira NY 14903	
	Municipality	Elmira County Chemung	
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 59 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
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SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
100945
- b. Facility Name: Cumberland County Landfill
Address Line 1: 135 Vaughn Road
Address Line 1:
Address City State ZIP: Shippensburg PA 17240
Municipality: Newburg Boro County: Cumberland
- c. Facility Contact Name: Dusty Hilbert
Title: Compliance Manager
Phone: (717) 729-5261 Email Address: dhilbert@iswaste.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
39 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
- b. Facility Name:
Address Line 1:
Address Line 1:
Address City State ZIP:
Municipality: County:
- c. Facility Contact Name:
Title:
Phone: Email Address:
- d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

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Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10084204

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10084204

PAGE: 1 of 2

PO#: AF 76729

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR58702 Pad 5

RECEIVED FOR LAB BY: DLM2

DATE: 08/24/2010 15:10

Page 1 of 2

SAMPLE: Air Cuttings

SAMPLED BY: SG

Lab ID: 10084204-001A

Grab

Sample Time: 08/24/2010 12:56

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	870 mg/Kg	EPA 9071		08/30/10 10:40	08/30/10	
Sample Note: Analysis performed by Microbac -Erie						

SAMPLE: Air Cuttings

SAMPLED BY: SG

Lab ID: 10084204-001B

Grab

Sample Time: 08/24/2010 12:56

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	51.4 %	Moisture Calc.	0.01	08/26/10 14:30	08/27/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	08/25/10 14:35	08/25/10	IC-SA
pH	10.58@21.1°C	EPA 9045C		08/26/10 16:50	08/26/10	SG-SA

SAMPLE: Air Cuttings

SAMPLED BY: SG

Lab ID: 10084204-001C

Grab

Sample Time: 08/24/2010 12:56

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	519 mg/Kg-dry	EPA 6010B	239	08/26/10 12:45	08/26/10	RMD-CV
Chloride	560 mg/Kg-dry	EPA 300.0	103	08/25/10 16:37	08/26/10	HDP-CV
Percent Moisture	51.4 %	SM2540G		08/26/10 14:30	08/27/10	IC-SA

SAMPLE: TCLP Leachate of Air Cuttings

SAMPLED BY: SG

Lab ID: 10084204-001E

Grab

Sample Time: 08/25/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/25/10 10:30	08/27/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/26/10 10:30	08/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/26/10 10:30	08/26/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/26/10 10:30	08/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/26/10 10:30	08/26/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/26/10 10:30	08/26/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/26/10 10:30	08/26/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Gini M. Davis

DATE: 8/31/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
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Work Order: 10084204

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10084204

PAGE: 2 of 2

PO#: AF 76729

PHONE: (607) 562-4000
FAX: (607) 562-4001

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DATE: 08/24/2010 15:10

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Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/26/10 10:30	08/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/26/10 10:30	08/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/26/10 10:30	08/26/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	08/26/10 10:30	08/26/10	RMD-CV

REMARKS:

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S Spike Recovery outside accepted recovery limits

MANAGER

Cami M. Davis

DATE: 8/31/2010

LAB ID: 08-00380
LAB ID: 39-00401

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Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

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Work Order: 10085052

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10085052

PAGE: 1 of 2

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PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR 58702 Pad 5

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DATE: 08/30/2010 13:33

Page 1 of 2

SAMPLE: **Air Cuttings**

Lab ID: 10085052-001A

Grab

SAMPLED BY: SO

Sample Time: 08/30/2010 9:55

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	< 374 mg/Kg	EPA 9071	374	09/01/10 16:00	09/01/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: **Air Cuttings**

Lab ID: 10085052-001B

Grab

SAMPLED BY: SO

Sample Time: 08/30/2010 9:55

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	15.5 %	Moisture Calc.	0.01	09/01/10 13:00	09/02/10	SG-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/01/10 14:25	09/01/10	IC-SA
pH	7.83@21.5°C	EPA 9045C		08/31/10 14:00	08/31/10	SG-SA

SAMPLE: **Air Cuttings**

Lab ID: 10085052-001C

Grab

SAMPLED BY: SO

Sample Time: 08/30/2010 9:55

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	837 mg/Kg-dry	EPA 6010B	100.0	08/31/10 12:00	09/01/10	GSR-CV
Chloride	638 mg/Kg-dry	EPA 300.0	59.2	08/31/10 16:10	09/01/10	HDP-CV
Percent Moisture	15.5 %	SM2540G		09/01/10 13:00	09/02/10	SG-SA

SAMPLE: **Air Cuttings**

Lab ID: 10085052-001E

Grab

SAMPLED BY: SO

Sample Time: 08/31/2010 8:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/01/10 13:00	09/01/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/01/10 10:00	09/01/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/01/10 10:00	09/01/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/01/10 10:00	09/01/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/01/10 10:00	09/01/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/01/10 10:00	09/01/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/01/10 10:00	09/01/10	GSR-CV

REMARKS:

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MANAGER

Carrie M. Davis

DATE: 9/3/2010

LAB ID: 08-00380
LAB ID: 39-00401

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Work Order: 10085052

SEND DATA TO:

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COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
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PAGE: 2 of 2

PO#: AF76729

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PWS ID#

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DATE: 08/30/2010 13:33

Page 2 of 2

Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/01/10 10:00	09/01/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/01/10 10:00	09/01/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/01/10 10:00	09/01/10	GSR-CV
Zinc - TCLP extracted	2.78 mg/L	EPA 6010B	0.200	09/01/10 10:00	09/01/10	GSR-CV

REMARKS:

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MANAGER

Carrie M. Davis

DATE: 9/3/2010

PA ID #: 08-00380
NY ID #: 11216

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Eastern Division

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Work Order: 10085276

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10085276

PAGE: 1 of 1

PO#: AF76729

PWS ID#

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FAX: (607) 562-4001

TEST REPORT

CDNR58702 Pad 5

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DATE: 08/31/2010 16:10

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SAMPLE: Inv. Cuttings

Lab ID: 10085276-001A

Composite

SAMPLED BY: SG

Sample Time: 08/31/2010 14:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	9.20 %	Moisture Calc.	0.01	09/01/10 13:00	09/02/10	SG-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/01/10 14:35	09/01/10	IC-SA
pH	8.79@22.3°C	EPA 9045C		09/01/10 16:15	09/01/10	SG-SA

SAMPLE: Inv. Cuttings

Lab ID: 10085276-001B

Composite

SAMPLED BY: SG

Sample Time: 08/31/2010 14:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	86000 mg/Kg	EPA 9071	170	09/01/10 16:00	09/01/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division

SAMPLE: TCLP Leachate of Inv. Cuttings

Lab ID: 10085276-001D

Composite

SAMPLED BY: SG

Sample Time: 08/31/2010 14:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/02/10 9:20	09/03/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/03/10 10:10	09/03/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/03/10 10:10	09/03/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/03/10 10:10	09/03/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/03/10 10:10	09/03/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/03/10 10:10	09/03/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/03/10 10:10	09/03/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/03/10 10:10	09/03/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/03/10 10:10	09/03/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/03/10 10:10	09/03/10	RMD-CV
Zinc - TCLP extracted	0.206 mg/L	EPA 6010B	0.200	09/03/10 10:10	09/03/10	RMD-CV

REMARKS:

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MANAGER

Carrie M. Davis

DATE: 9/3/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

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SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

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PAGE: 1 of 3

PO#: AF76729

PWS ID#

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TEST REPORT

DCNR58702 Pad 5

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DATE: 09/22/2010 11:10

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SAMPLE: **Inv. Cuttings & ASR**

Lab ID: 10093526-001A

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 15:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	102000 mg/Kg	EPA 9071		09/24/10 8:30	09/24/10	
Sample Note: Analysis performed by Microbac-Erie						

SAMPLE: **Inv. Cuttings & ASR**

Lab ID: 10093526-001B

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 15:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	21.0 %	Moisture Calc.	0.01	09/23/10 9:10	09/24/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/22/10 17:10	09/22/10	IC-SA
pH	10.59 @ 21.3°C	EPA 9045C		09/23/10 16:37	09/23/10	KAL-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings & ASR**

Lab ID: 10093526-001D

Grab

SAMPLED BY: SG

Sample Time: 09/23/2010 7:30

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/24/10 11:00	09/27/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/24/10 10:30	09/26/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Copper - TCLP extracted	0.397 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Nickel - TCLP extracted	0.255 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Zinc - TCLP extracted	28.1 mg/L	EPA 6010B	0.200	09/24/10 10:30	09/26/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Cami M. Davis

DATE: 9/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
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SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10093526

PAGE: 2 of 3

PO#: AF76729

PWS ID#

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FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 5

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DATE: 09/22/2010 11:10

Page 2 of 3

SAMPLE: Air Cuttings & ASR

Lab ID: 10093526-002A

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 14:45

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	2820 mg/Kg	EPA 9071		09/24/10 8:30	09/24/10	
Sample Note: Analysis performed by Microbac-Erie						

SAMPLE: Air Cuttings & ASR

Lab ID: 10093526-002B

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 14:45

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	29.9 %	Moisture Calc.	0.01	09/23/10 9:10	09/24/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/22/10 17:15	09/22/10	IC-SA
pH	8.33 @ 21.3°C	EPA 9045C		09/23/10 16:39	09/23/10	KAL-SA

SAMPLE: TCLP Leachate of Air Cuttings & ASR

Lab ID: 10093526-002D

Grab

SAMPLED BY: SG

Sample Time: 09/23/2010 7:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/24/10 11:00	09/27/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/24/10 10:30	09/26/10	RMD-CV
Cadmium - TCLP extracted	0.186 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Copper - TCLP extracted	0.872 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Lead - TCLP extracted	2.25 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Nickel - TCLP extracted	0.760 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Zinc - TCLP extracted	83.0 mg/L	EPA 6010B	0.200	09/24/10 10:30	09/26/10	RMD-CV

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 9/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

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Work Order: 10093526

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10093526

PAGE: 3 of 3

PO#: AF76729

PWS ID#

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TEST REPORT

DCNR58702 Pad 5

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DATE: 09/22/2010 11:10

Page 3 of 3

SAMPLE: **Auto Shredder Residue (ASR) Fluff**

Lab ID: 10093526-003A

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 14:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	43600 mg/Kg	EPA 9071		09/24/10 8:30	09/24/10	
Sample Note: Analysis performed by Microbac-Erie						

SAMPLE: **Auto Shredder Residue (ASR) Fluff**

Lab ID: 10093526-003B

Grab

SAMPLED BY: SG

Sample Time: 09/21/2010 14:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	8.12 %	Moisture Calc.	0.01	09/23/10 9:10	09/24/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/22/10 17:20	09/22/10	IC-SA
pH	8.41 @ 21.4°C	EPA 9045C		09/23/10 16:40	09/23/10	KAL-SA

SAMPLE: **TCLP Leachate of Auto Shredder Residue (ASR) Fluff**

Lab ID: 10093526-003D

Grab

SAMPLED BY: SG

Sample Time: 09/23/2010 7:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/24/10 11:00	09/27/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/24/10 10:30	09/26/10	RMD-CV
Cadmium - TCLP extracted	0.282 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Copper - TCLP extracted	1.67 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Lead - TCLP extracted	2.34 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Nickel - TCLP extracted	0.580 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/24/10 10:30	09/26/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/24/10 10:30	09/26/10	RMD-CV
Zinc - TCLP extracted	110 mg/L	EPA 6010B	0.200	09/24/10 10:30	09/26/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carmie M. Davis

DATE: 9/27/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121724

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121724
PAGE: 1 of 3
PO#: AF 76735
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 5

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 1 of 3

SAMPLE: Air or Gel Cuttings

SAMPLED BY: SG

Lab ID: 10121724-001A

Grab

Sample Time: 12/08/2010 17:44

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: Air or Gel Cuttings

SAMPLED BY: SG

Lab ID: 10121724-001C

Grab

Sample Time: 12/08/2010 17:44

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	1200 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV

SAMPLE: Air or Gel Cuttings

SAMPLED BY: SG

Lab ID: 10121724-001D

Grab

Sample Time: 12/08/2010 17:44

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
% Solids	73.27 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	17.38 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA

SAMPLE: TCLP Leachate of Air or Gel Cuttings

SAMPLED BY: SG

Lab ID: 10121724-001F

Grab

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

REMARKS:

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B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

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PAGE: 2 of 3
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TEST REPORT

DCNRS8702 Pad 5

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 2 of 3

2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/14/10 8:37	12/14/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

SAMPLE: **TCLP Leachate of Air or Gel Cuttings** Lab ID: 10121724-001G Grab
SAMPLED BY: SG Sample Time: 09/23/2010 7:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Strontium - TCLP extracted	3.53 mg/L	EPA 6010B	0.050	09/24/10 10:30	09/26/10	RMD-CV
Sample Note: Sample for TCLP extracted Strontium was received on 9/22/10 at 11:10 by DLM2.						

SAMPLE: **TCLP Leachate of Air or Gel Cuttings** Lab ID: 10121724-001H Grab
SAMPLED BY: SG Sample Time: 12/11/2010 12:45

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
pH	6.11@16.8°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA

SAMPLE: **ZHE Extract of Air or Gel Cuttings** Lab ID: 10121724-001I Grab
SAMPLED BY: SG Sample Time: 12/11/2010 12:45

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

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B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10121724

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
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WO#: 10121724

PAGE: 3 of 3

PO#: AF 76735

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PHONE: (607) 562-4000

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TEST REPORT

DCNRS8702 Pad 5

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 3 of 3

Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA

SAMPLE: **ASTM Extract of Air or Gel Cuttings**

Lab ID: 10121724-001J

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chemical Oxygen Demand	142 mg/L	B HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA

SAMPLE: **ASTM Extract of Air or Gel Cuttings**

Lab ID: 10121724-001L

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	7.13@16.3°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
Total Solids	1410 mg/L	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA

SAMPLE: **Air or Gel Cuttings**

Lab ID: 10121724-001M

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 10:25

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	12/15/10 15:45	12/15/10	

Sample Note: Analysis performed by Analytical Services, Inc.

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

REPORT TO: Talisman / UEG	
geowetlands@aol.com	
CONTACT Steve Gridley	
PH# 607-731-0145	
FAX#	
BILL TO: Talisman	
PO# AF76735	
PROJECT DESCRIPTION DCNR 58702 Pond 5	
SAMPLER SIGNATURE / AFFILIATION SGG UEG	
CONTAINER	SAMPLING POINT

2566 Pennsylv
F

PAGE 1 OF 1

NEEDED: ☐ YES / ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES AFTER COLLECTION

**TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE**

RESULTS ARE BEING USED FOR:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NYDOH	NYDEC	PADEP

LANDFILL Mostoller

☐ PERSONAL OTHER

DW	DRINKING WATER	SL	SLUDGE	<input type="checkbox"/> NYDOH	<input checked="" type="checkbox"/> NYDO
GW	GROUND WATER	SO	SOIL		
SW	SURFACE WATER	HZ	HAZARDOUS		LAND
WW	WASTE WATER	OTHER		<input type="checkbox"/> PERSONAL	OTHER
DE	DEIONIZED WATER	DI	DISTILLED WATER		

IMPOSITE	H	HYDROCHLORIC ACID	OH	SODIUM HYDROXIDE
	S	SULFURIC ACID	AS	ASCORBIC ACID
	N	NITRIC ACID	AC	ACETIC ACID
	SO ₃	SODIUM SULFITE	NH ₄	AMMONIUM CHLORIDE
	Thio	SODIUM THIOSULFATE	Zn	ZINC ACETATE
-	NONE	Hg	MERCURIC CHLORIDE	

An incomplete chain of custody may delay the processing of your sample(s).

**ANALYSIS TO BE PERFORMED
(PER CONTAINER)**

COMPOSITED ON RECEIPT
PRESERVATION

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Please fill out all applicable areas completely

LAB USE ONLY

1	Air or Gel Cuttings			C	Sg- N	Ignitability, Reactive Sulfide & Cyanide
2				C		PCBs, Total Solids
3	A - flamm., Ign.			G		Total Volatile Solids
4	B - Reactivity			C		Ammonia-Nitrogen
5	D - TS, TUS			C		Water Leaching Procedure: COD,
6	E - Total Sample	V	V	C	V V	Total Solids, Oil & Grease,
7	F - TCLP 8070, metals.					
8	G - TCLP Metals Sr	K - ASTM #4E				
9	H - TCLP pH	L - ASTM TS, pH				36 HOUR TURNAROUND
10	I - ASTM cod, NA ₃ TCLP Vols M - TOX					DAY TURNAROUND
11	J - ASTM CODE NAH					

LAB USE ONLY: IDENTIFIED BY _____ TEMPERATURE FRONT/CELL _____ ARRIVAL ONCE Y/N _____

RELINQUISHED BY: <i>[Signature]</i>	DATE: 12/9/10	TIME: 1530	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY: <i>[Signature]</i>	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY: <i>[Signature]</i>	DATE: 12/9/10	TIME: 1545



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY Date Received & General Notes	
General Reference 287.54					
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix	
Municipality Warrendale			County Allegheny		
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. <u>Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-006) well pad site located at 149 Carey Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.</u>					
Municipality		Ward		County Tioga	
State PA					
SECTION B. WASTE DESCRIPTION					
Residual Waste Code 810	Residual Waste Code Description Drill cuttings (oil and gas)	Amount 233	Unit of Measure <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	Time Frame <input type="checkbox"/> One Time	
1. GENERAL PROPERTIES					
a. pH Range 11.43 to --- (based on analyses or knowledge)					
b. Physical State		<input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)			
c. Physical Appearance		Color Greyish Black Odor Earthy / Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments			
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010
- b. Facility Name Hakes C&D Landfill
Address Line 1 4376 Manning Ridge Road
Address Line 1 _____
Address City State ZIP Painted Post NY 14870
Municipality Erwin Twp County Steuben
- c. Facility Contact Name Joseph Boyles
Title _____
Phone (607) 937-6044 Email Address joe.boyles@casella.com
(585) 466-7271
- d. Volume of waste shipped to processing or disposal facility in the previous year.
233 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
- b. Facility Name _____
Address Line 1 _____
Address Line 1 _____
Address City State ZIP _____
Municipality _____ County _____
- c. Facility Contact Name _____
Title _____
Phone _____ Email Address _____
- d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature



Date

2/25/14

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10041891

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10041891

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 6

RECEIVED FOR LAB BY: DLM2

DATE: 04/14/2010 10:50

Page 1 of 1

SAMPLE: **Air Cuttings**

Lab ID: 10041891-001A

Composite

SAMPLED BY: SG

Sample Time: 04/12/2010 18:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/16/10 9:00	04/19/10	KW-CV
Sodium	194 mg/Kg	EPA 6010B	105	04/16/10 15:25	04/19/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/21/10 9:10	04/21/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	04/21/10 9:10	04/21/10	GSR-CV
pH	11.43 @ 20.8 °C	EPA 9045D		04/20/10 13:25	04/20/10	SMH-CV
Total Petroleum Hydrocarbons	388 mg/Kg	EPA 9071		04/20/10 8:30	04/20/10	
Chloride	357 mg/Kg Z	EPA 300.0	50.0	04/16/10 15:01	04/17/10	HDP-CV

Sample Note: TPH analysis performed by Microbac Lab - Erie Div.

Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Gami M. Davis

DATE: 4/22/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 1 of 3

PO#: AF 76748

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 1 of 3

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001A

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	24000 mg/Kg	EPA 9071		12/29/10 15:10	12/29/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001B

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	67.1 %	Moisture Calc.	0.01	01/03/11 11:30	01/04/11	KMF-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	12/28/10 17:10	12/28/10	IC-SA
pH	8.63@19.8°C	EPA 9045C		12/29/10 11:41	12/29/10	SG-SA

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001C

Grab

SAMPLED BY: DJD

Sample Time: 12/28/2010 11:40

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Sodium	400 mg/Kg	EPA 6010B	60.1	12/30/10 10:00	01/03/11	GSR-CV
Chloride	237 mg/Kg	EPA 300.0	47.4	01/04/11 12:43	01/05/11	HDP-CV
ASTM D Chloride	< 25.0 mg/L	EPA 300.0	25.0	01/07/11 15:12	01/07/11	HDP-CV
ASTM D Ph	8.31 @ 19.1°C	SM4500H+B		01/07/11 14:22	01/07/11	LTW-CV
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	01/06/11 9:28	01/07/11	HDP-CV
Reactive Sulfide	< 64 mg/Kg	SW846 7.3	64	01/10/11 8:55	01/10/11	LTW-CV

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10124003-001E

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/30/10 11:30	01/03/11	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/30/10 9:30	01/03/11	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 2 of 3

PO#: AF 76748

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 2 of 3

Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Strontium - TCLP extracted	5.72 mg/L	L EPA 6010B	0.050	12/30/10 9:30	01/03/11	GSR-CV
Zinc - TCLP extracted	1.84 mg/L	EPA 6010B	0.200	12/30/10 9:30	01/03/11	GSR-CV

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10124003-001F

Grab

SAMPLED BY: DJD

Sample Time: 01/06/2011 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	01/10/11 10:20	01/10/11	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	01/11/11 8:25	01/11/11	RHH-SA

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10124003-001G

Grab

SAMPLED BY:

Sample Time: 01/06/2011 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Amie M. Davis

DATE: 1/12/2011

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10124003

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10124003

PAGE: 3 of 3

PO#: AF 76748

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 006-04 Well Pad

RECEIVED FOR LAB BY: CMS

DATE: 12/28/2010 13:50

Page 3 of 3

Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	01/07/11 9:22	01/07/11	CTM-SA

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001H

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	01/11/11 15:00	01/11/11	

Sample Note: Analysis performed by Analytical Services, Inc.

SAMPLE: **Air Cuttings**

Lab ID: 10124003-001I

Grab

SAMPLED BY: DJD

Sample Time: 12/29/2010 8:00

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ignitability	Negative AS IS	SW846 1030		01/07/11 14:00	01/07/11	

Sample Note: Analysis performed by QC Laboratories.

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					DEP USE ONLY	
General Reference 287.54					Date Received & General Notes	
Date Prepared/Revised February 11, 2011						
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext	
Company Contact Last Name Brown		First Name Dina		MI MI	Suffix	
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com				
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-008) well pad site located at 2283 River Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.						
Municipality		Ward		County		Tioga
				State		PA
SECTION B. WASTE DESCRIPTION						
Residual Waste Code	Residual Waste Code Description		Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)		5,590	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES						
a. pH Range 7.14 to 9.20 (based on analyses or knowledge)						
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)						
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments						
2. CHEMICAL ANALYSIS ATTACHMENTS						
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
b. A detailed description of the waste sampling method is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
d. The results of the hazardous waste determination is attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A						

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003			
b.	Facility Name	Hyland Landfill		
	Address Line 1	6653 Herdman Road		
	Address Line 1			
	Address City State ZIP	Angelica	NY	14709
	Municipality	Angelica	County	Allegany
c.	Facility Contact Name	Larry Shilling		
	Title			
	Phone	(585) 466-7271	Email Address	larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 3,149 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010			
b.	Facility Name	Hakes C&D Landfill		
	Address Line 1	4376 Manning Ridge Road		
	Address Line 1			
	Address City State ZIP	Painted Post	NY	14870
	Municipality	Erwin Twp	County	Steuben
c.	Facility Contact Name	Joseph Boyles		
	Title			
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,017 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00001			
b.	Facility Name	Chemung County Landfill		
	Address Line 1	1690 Lake Street		
	Address Line 1			
	Address City State ZIP	Elmira	NY	14903
	Municipality	Elmira	County	Chemung
c.	Facility Contact Name	Carla Canjar		
	Title	Environmental Manager		
	Phone	(585) 797-5941	Email Address	carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 228 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lane		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 196 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10073092

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10073092

PAGE: 1 of 2

PO#: AF77032

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 8

RECEIVED FOR LAB BY: WCB

DATE: 07/20/2010 13:25

Page 1 of 2

SAMPLE: **Air Cuttings**

Lab ID: 10073092-001A

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:20

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Sodium	< 158 mg/Kg-dry	EPA 6010B	158	07/22/10 7:00	07/22/10	GSR-CV
Chloride	125 mg/Kg-dry	EPA 300.0	56.4	07/21/10 12:33	07/22/10	HDP-CV
MBAS, calculated as LAS, mol wt 342 g/mol	5.2 mg/Kg	N SM5540C	2.5	07/20/10 8:25	07/20/10	BJW-CV
Percent Moisture	11.4 %	SM2540G		07/21/10 16:00	07/22/10	BJW-CV

SAMPLE: **Air Cuttings**

Lab ID: 10073092-001B

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:20

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	12.2 %	Moisture Calc.	0.01	07/21/10 9:40	07/22/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/22/10 9:55	07/22/10	IC-SA
pH	9.20@21.7°C	EPA 9045C		07/21/10 12:15	07/21/10	NFM-SA
Phosphorus	50 mg/kg-dry	S EPA 365.3	6	07/22/10 11:00	07/23/10	MED-SA

SAMPLE: **Air Cuttings**

Lab ID: 10073092-001C

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:20

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	75 mg/Kg	EPA 9071		07/22/10 11:10	07/22/10	

Sample Note: Analysis performed by Microbac-Erie

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10073092-001E

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:20

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	07/22/10 9:00	07/23/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/22/10 12:30	07/22/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 7/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10073092

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10073092

PAGE: 2 of 2

PO#: AF77032

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 8

RECEIVED FOR LAB BY: WCB

DATE: 07/20/2010 13:25

Page 2 of 2

Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/22/10 12:30	07/22/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 7/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10083665

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10083665

PAGE: 1 of 1

PO#: AF77032

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702-Pad 8

RECEIVED FOR LAB BY: DLM2

DATE: 08/20/2010 11:51

Page 1 of 1

SAMPLE: **Inv Cuttings**

Lab ID: 10083665-001A

Composite

SAMPLED BY: SG

Sample Time: 08/19/2010 15:30

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	28.0 %	Moisture Calc.	0.01	08/23/10 13:30	08/24/10	MED-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	08/23/10 15:30	08/23/10	IC-SA
pH	7.14@20.9°C	EPA 9045C		08/23/10 16:12	08/23/10	MED-SA

SAMPLE: **Inv Cuttings**

Lab ID: 10083665-001B

Composite

SAMPLED BY: SG

Sample Time: 08/19/2010 15:30

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	63200 mg/Kg	EPA 9071	170	08/23/10 11:15	08/23/10	

Sample Note: Analysis performed by Microbac -Erie

SAMPLE: **TCLP Leachate of Inv Cuttings**

Lab ID: 10083665-001D

Composite

SAMPLED BY: SG

Sample Time: 08/21/2010 9:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/24/10 8:45	08/24/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/24/10 10:50	08/24/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/24/10 10:50	08/24/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/24/10 10:50	08/24/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/24/10 10:50	08/24/10	RMD-CV
Copper - TCLP extracted	0.275 mg/L	EPA 6010B	0.100	08/24/10 10:50	08/24/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/24/10 10:50	08/24/10	RMD-CV
Nickel - TCLP extracted	0.138 mg/L	EPA 6010B	0.100	08/24/10 10:50	08/24/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/24/10 10:50	08/24/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/24/10 10:50	08/24/10	RMD-CV
Zinc - TCLP extracted	7.19 mg/L	EPA 6010B	0.200	08/24/10 10:50	08/24/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Amie M. Davis

DATE: 8/25/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10110478

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10110478

PAGE: 1 of 1

PO#: AF 77032

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR 58702 Pad 8 CU

RECEIVED FOR LAB BY: RML

DATE: 11/03/2010 12:36

Page 1 of 1

SAMPLE: **Clean Soil**

Lab ID: 10110478-001A

Composite

SAMPLED BY: SG

Sample Time: 11/03/2010 10:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Benzene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
Toluene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
Ethylbenzene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
MTBE	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
Cumene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
1,3,5-Trimethylbenzene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
1,2,4-Trimethylbenzene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV
Naphthalene	< 0.040 mg/Kg	EPA 8260B	0.040	11/04/10 9:02	11/04/10	DN-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 11/5/2010

CHAIN OF CUSTODY

Bc

PAGE 1 OF 1

REPORT TO: Talisman / UEG

geowetlands@aol.com

twollin@rallysolutions.ca

CONTACT Steve Gridley

PH# 607-731-0145

FAX#

BILL TO: Talisman

PO# AF77032

PROJECT DESCRIPTION
DENV 58702 Pad 8 CU

SAMPLER SIGNATURE / AFFILIATION
[Signature] UEG

CONTAINER / SAMPLING POINT

2566 Per

W/O#: 10110478

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

RESULTS ARE BEING USED FOR:

☐ NYDOH ☒ NYDEC ☒ PADEP

☐ LANDFILL ☐ PERSONAL ☐ OTHER

ARE SPECIAL DETECTION LIMITS
NEEDED: ☐ YES ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?
☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

H	HYDROCHLORIC ACID	OH	SODIUM HYDROXIDE
S	SULFURIC ACID	AS	ASCORBIC ACID
N	NITRIC ACID	AC	ACETIC ACID
SO ₃	SODIUM SULFITE	NH ₄	AMMONIUM CHLORIDE
Thio	SODIUM THIOSULFATE	ZN	ZINC ACETATE
-	NONE	Hg	MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT

PRESERVATIVE ADDED ON RECEIPT

Please fill out all
applicable areas
completely

LAB USE ONLY

1	Diesel Contaminated <i>Clean Soil</i>	11/3	1000	50	C	8	N	Benzene, Toluene, Ethylbenzene			-001A
2								Cumene, Napthalene, MTBE			
3								1,2,4 - Trimethylbenzene			
4								1,3,5 - Trimethylbenzene			
5											
6											
7											
8											
9											
10											
11											

24 HOUR TURNAROUND

DAY TURNAROUND

DELIVERED BY *chict* TEMPERATURE UPON RECEIPT *11* °C ARRIVAL ON ICE *Y/N*

RELINQUISHED BY: <i>[Signature]</i>	DATE: 11/13/10	TIME: 1236	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY: <i>[Signature]</i>	DATE: 11/13/10	TIME: 1236

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10110481

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10110481

PAGE: 1 of 1

PO#: AF 77032

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR58702 Pad 8 cu

RECEIVED FOR LAB BY: RML

DATE: 11/03/2010 12:36

Page 1 of 1

SAMPLE: **Invert** Lab ID: 10110481-001A Grab
SAMPLED BY: SG Sample Time: 11/03/2010 10:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	< 128 mg/Kg	EPA 9071	128	11/04/10 14:30	11/04/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.

SAMPLE: **Invert** Lab ID: 10110481-001B Grab
SAMPLED BY: SG Sample Time: 11/03/2010 10:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	6.53 %	Moisture Calc.	0.01	11/03/10 14:45	11/04/10	IC-SA
Free Liquid	<0.1 %	EPA 9095A	0.1	11/03/10 14:35	11/03/10	IC-SA
pH	8.41@23.6°C	EPA 9045C		11/04/10 15:32	11/04/10	SG-SA

SAMPLE: **TCLP Leachate of Invert** Lab ID: 10110481-001D Grab
SAMPLED BY: SG Sample Time: 11/04/2010 7:30

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	11/04/10 13:15	11/04/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/04/10 14:05	11/04/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	11/04/10 14:05	11/04/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 11/5/2010

REPORT TO: Talisman / UEG geowetlands@aol.com twellin@rallysolutions.ca	
CONTACT Steve Gridley PH# 607-731-0145 FAX#	
BILL TO: Talisman	
PO# AF 77032	
PROJECT DESCRIPTION DUNES 8702 Pad 8 CU SAMPLER SIGNATURE / AFFILIATION [Signature] UEG	
CONTAINER SAMPLING POINT	
1	Inv Cuttings Export
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
<div style="display: flex; justify-content: space-between;"> LAS USE ONLY DELIVERED BY: _____ </div>	
RELINQUISHED BY: [Signature]	
RELINQUISHED BY:	
RELINQUISHED BY:	

W/O#: 10110481

ARE SPECIAL DETECTION LIMITS
NEEDED: ☐ YES ☒ NO
IF YES, PLEASE ATTACH
IS A QC PACKAGE NEEDED?
☐ YES ☒ NO
IF YES, PLEASE ATTACH REQUIREMENTS

**TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE**

RESULTS ARE BEING USED FOR:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NYDOH	NYDEC	PADEP

LANDFILL _____

☐ PERSONAL ☐ OTHER

DW	DRINKING WATER	SL	SLUDGE	<input type="checkbox"/> NYDOH	<input checked="" type="checkbox"/> NYD
GW	GROUND WATER	SO	SOIL		
SW	SURFACE WATER	HZ	HAZARDOUS		LAND
WW	WASTE WATER	OTHER		<input type="checkbox"/>	
DE	DEIONIZED WATER	DI	DISTILLED WATER	PERSONAL	OTHER

COMPOSITE	H	HYDROCHLORIC ACID	OH	SODIUM HYDROXIDE
	S	SULFURIC ACID	AS	ASCORBIC ACID
	N	NITRIC ACID	AC	ACETIC ACID
	SO ₃	SODIUM SULFITE	NH ₄	AMMONIUM CHLORIDE
	Thio	SODIUM THIOSULFATE	ZN	ZINC ACETATE
	-	NONE	Hg	MERCURIC CHLORIDE

An Incomplete chain of custody may delay the processing of your sample(s).

**ANALYSIS TO BE PERFORMED
(PER CONTAINER)**

Please fill out all applicable areas completely

LAB USE ONLY

[illegible]

LAB USE ONLY


DELIVERED BY


Chief

TEMPERATURE UPON RECEIPT _____

9

ARRIVAL ON ICE YIN

RELINQUISHED BY: 

RELINQUISHED BY: 

DATE: 11/3/00

TIME: 1236

RECEIVED BY:

DATE:

TIME

RELINQUISHED BY:

DATE: / /

TIME:

RECEIVED BY:

DATE:

TIME:

RELINQUISHED BY:

DATE: / /

TIME:

~~RECEIVED~~

DATE: 77

TIME:

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10110494

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10110494

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 8 CU

RECEIVED FOR LAB BY: SCP

DATE: 11/03/2010 13:27

Page 1 of 1

SAMPLE: **Pad Soil**

Lab ID: 10110494-001A

Grab

SAMPLED BY: SG

Sample Time: 11/03/2010 10:00

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Oil & Grease	< 110 mg/Kg	EPA 9071	110	11/04/10 14:30	11/04/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc-Erie Division.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 11/5/2010

PAGE 1 OF 1

Ad Graphics Printing 570.888.068



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54 Date Prepared/Revised February 11, 2011				DEP USE ONLY	
				Date Received & General Notes	
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown	First Name Dina	MI MI		Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321	Ext	Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-009) well pad site located at 2499 River Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality	Ward	County	Tioga	State	PA
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	6,281	<input type="checkbox"/> cu yd <input type="checkbox"/> gal	<input type="checkbox"/> lb <input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a.	pH Range 8.97 to --- (based on analyses or knowledge)				
b.	Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)				
c.	Physical Appearance Color Greyish Black Odor Earthy/ Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments				
2. CHEMICAL ANALYSIS ATTACHMENTS					
a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
9-0232-00003

b. Facility Name: Hyland Landfill
 Address Line 1: 6653 Herdman Road
 Address Line 1:
 Address City State ZIP: Angelica NY 14709
 Municipality: Angelica County: Allegany

c. Facility Contact Name: Larry Shilling
 Title:
 Phone: (585) 466-7271 Email Address: larry.shilling@casella.com

- d. Volume of waste shipped to processing or disposal facility in the previous year.
 3,067 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010

b. Facility Name: Hakes C&D Landfill
 Address Line 1: 4376 Manning Ridge Road
 Address Line 1:
 Address City State ZIP: Painted Post NY 14870
 Municipality: Erwin Twp County: Steuben

c. Facility Contact Name: Joseph Boyles
 Title:
 Phone: (607) 937-6044 (585) 466-7271 Email Address: joe.boyles@casella.com

- d. Volume of waste shipped to processing or disposal facility in the previous year.
 2,042 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No

If "Yes", list the general permit number or approval number.

- b. Volume of waste beneficially used in the previous year.
 0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004			
b.	Facility Name	Chemung County Landfill		
	Address Line 1	1690 Lake Street		
	Address Line 1			
	Address City State ZIP	Elmira	NY	14903
	Municipality	Elmira	County	Chemung
c.	Facility Contact Name	Carla Canjar		
	Title	Environmental Manager		
	Phone	(585) 797-5941	Email Address	carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,034 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lane		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 138 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature

Date

2/25/11

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10040650

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040650

PAGE: 1 of 3

PO#: Ensign 123

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR 58702-009-01

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 1 of 3

SAMPLE: In Cuttings - Bin

Lab ID: 10040650-001A

Grab

SAMPLED BY: DB

Sample Time: 04/05/2010 18:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
pH	8.97 @ 22.6°C	EPA 9045D		04/07/10 11:55	04/07/10	NC-CV
Total Petroleum Hydrocarbons	49000 mg/Kg	EPA 1664A		04/07/10 12:40	04/07/10	DTG-CV

SAMPLE: In Cuttings - Bin

Lab ID: 10040650-001B

Grab

SAMPLED BY: DB

Sample Time: 04/05/2010 18:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
% Solids	71.82 % Wght.	SM2540B		04/06/10 14:30	04/07/10	NFM-SA

SAMPLE: TCLP Leachate of In Cuttings - Bin

Lab ID: 10040650-001D

Grab

SAMPLED BY: DB

Sample Time: 04/07/2010 6:45

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.008	04/07/10 11:30	04/07/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	100	04/07/10 11:45	04/07/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	1	04/07/10 11:45	04/07/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Copper - TCLP extracted	1.02 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	1	04/07/10 11:45	04/07/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	5	04/07/10 11:45	04/07/10	RMD-CV
Zinc - TCLP extracted	12.0 mg/L	EPA 6010B		04/07/10 11:45	04/07/10	RMD-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Cassie M. Davis

DATE: 4/8/2010

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10040650

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040650
PAGE: 2 of 3
PO#: Ensign 123
PWS ID#

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

DCNR 58702-009-01

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 2 of 3

SAMPLE: **TCLP Leachate of In Cuttings - Bin**

Lab ID: 10040650-001E

Grab

SAMPLED BY: DB

Sample Time: 04/07/2010 6:45

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	5	04/07/10 16:52	04/07/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	7.5	04/07/10 16:52	04/07/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	3	04/07/10 16:52	04/07/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	S EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.5	04/07/10 16:52	04/07/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	400	04/07/10 16:52	04/07/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	100	04/07/10 16:52	04/07/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA

SAMPLE: **ZHE Extract of In Cuttings - Bin**

Lab ID: 10040650-001F

Grab

SAMPLED BY: DB

Sample Time: 04/07/2010 6:45

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Benzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Carbon tetrachloride - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Chlorobenzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	100	04/07/10 14:19	04/08/10	DN-CV
Chloroform - TCLP extracted	< 0.100 mg/L	EPA 8260B	3	04/07/10 14:19	04/08/10	DN-CV
1,4-Dichlorobenzene - TCLP extracted	< 0.100 mg/L	EPA 8260B	7.5	04/07/10 14:19	04/08/10	DN-CV
1,2-Dichloroethane - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Amie M. Davis

DATE: 4/8/2010

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10040650

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10040650

PAGE: 3 of 3

PO#: Ensign 123

PHONE: (607) 731-0145
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNR 58702-009-01

RECEIVED FOR LAB BY: WCB

DATE: 04/06/2010 8:45

Page 3 of 3

1,1-Dichloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Methyl ethyl ketone - TCLP extracted	< 0.500 mg/L	EPA 8260B	200	04/07/10 14:19	04/08/10	DN-CV
Tetrachloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Trichloroethene - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Vinyl chloride - TCLP extracted	< 0.100 mg/L	EPA 8260B	0.2	04/07/10 14:19	04/08/10	DN-CV

Sample Note: Limit of detection increased due to sample foaming

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Amie M. Davis

DATE: 4/8/2010

CHAIN OF CUSTODY

Benchmark Analytics, Inc.

PAGE _____ OF _____

Eastern Division
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

REPORT TO: Fortuna/
Talisman Energy USA

REFRIGERATE SAMPLES
AFTER COLLECTION

CONTACT: Steve Gridley
PH# 607-731-0145
FAX#

BILL TO: Fortuna
AFE: not available
PO# Ensign 123

PROJECT DESCRIPTION
DCNR 58702-009-01
SAMPLER SIGNATURE / AFFILIATION
Carmen Arley

Container Sample Point No./Type

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

RESULTS ARE BEING USED FOR:

NYDOH NYDEC PADEP

ARE SPECIAL DETECTION LIMITS

NEEDED: YES / NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

YES NO

IF YES, PLEASE ATTACH REQUIREMENTS

ID#

ation

Sample Point

W/O#: 10040650

SO₃ SODIUM SULFITE
Thio SODIUM THIOSULFATE
- NONE

100% ZINC ACETATE
Hg MERCURIC CHLORIDE

DATE SAMPLED

TIME OF SAMPLING

SAMPLE MATRIX

SAMPLE TYPE - GRAB / COMPOSITE

SAMPLER INITIALS

PRESERVATIVE

Chlorine Residual
Total Free

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON
RECEIPT

PRESERVATIVE
ADDED ON RECEIPT

Please fill
out all
applicable
areas
completely.

LAB USE ONLY

1	In Cuttings - Bin	4/7/10	10:00	SD	C	N	TCLP RCRH Metals, Cu, Ni, Zn			001 D
2							TCL, N - 2N			
3							TPH			001 A
4							PH			↓ A
5	001C - Total Sample						% Solids			001 B
6							TCLP 826D - 827D * Due: 4/8/10			001 E, F
7							(F) (E)			
8							(24 hr Rush)			
9										
10										
11										

Due: 4/7/10

LAB USE ONLY

DELIVERED BY

Client

TEMPERATURE UPON RECEIPT

15

°C

ARRIVAL ON ICE Y/N

RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY: Carmen Arley/PBC	DATE: 4/6/10	TIME: 8:45A	RECEIVED BY: Debbie McCarty	DATE: 4/6/10	TIME: 8:45



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54 Date Prepared/Revised February 11, 2011				DEP USE ONLY	
				Date Received & General Notes	
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown	First Name Dina	MI MI		Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321	Ext	Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-013) well pad site located at 349 Carey Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality	Ward	County	Tioga	State	PA
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	4,587	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a.	pH Range 7.91 to 7.95 (based on analyses or knowledge)				
b.	Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)				
c.	Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments				
2. CHEMICAL ANALYSIS ATTACHMENTS					
a.	The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
d.	The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
e.	If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003			
b.	Facility Name	Hyland Landfill		
	Address Line 1	6653 Herdman Road		
	Address Line 1			
	Address City State ZIP	Angelica	NY	14709
	Municipality	Angelica	County	Allegany
c.	Facility Contact Name	Larry Shilling		
	Title			
	Phone	(585) 466-7271	Email Address	larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,657 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010			
b.	Facility Name	Hakes C&D Landfill		
	Address Line 1	4376 Manning Ridge Road		
	Address Line 1			
	Address City State ZIP	Painted Post	NY	14870
	Municipality	Erwin Twp	County	Steuben
c.	Facility Contact Name	Joseph Boyles		
	Title			
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,521 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lane		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 275 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004			
b.	Facility Name	Chemung County Landfill		
	Address Line 1	1690 Lake Street		
	Address Line 1			
	Address City State ZIP	Elmira	NY	14903
	Municipality	Elmira	County	Chemung
c.	Facility Contact Name	Carla Canjar		
	Title	Environmental Manager		
	Phone	(585) 797-5941	Email Address	carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 116 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized.			
	100945			
b.	Facility Name	Cumberland County Landfill		
	Address Line 1	135 Vaughn Road		
	Address Line 1			
	Address City State ZIP	Newburg	PA	17240
	Municipality	Newburg Boro	County	Cumberland
c.	Facility Contact Name	Dusty Hilbert		
	Title	Compliance Manager		
	Phone	(717) 729-5261	Email Address	dhilbert@iswaste.com
d.	Volume of waste shipped to processing or disposal facility in the previous year.			
	18	<input type="checkbox"/> cu yd	<input type="checkbox"/> gal	<input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)
a.	Solid waste permit number(s) for processing or disposal facility being utilized.			
b.	Facility Name			
	Address Line 1			
	Address Line 1			
	Address City State ZIP			
	Municipality	County		
c.	Facility Contact Name			
	Title			
	Phone	Email Address		
d.	Volume of waste shipped to processing or disposal facility in the previous year.			
		<input type="checkbox"/> cu yd	<input type="checkbox"/> gal	<input type="checkbox"/> lb <input type="checkbox"/> ton (check one)
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.			
b.	Volume of waste beneficially used in the previous year.			
	0	<input type="checkbox"/> cu yd	<input type="checkbox"/> gal	<input type="checkbox"/> lb <input type="checkbox"/> ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature

Date

2/28/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10073086

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10073086

PAGE: 1 of 2

PO#: AF77049

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702-Pad 13

RECEIVED FOR LAB BY: DLM2

DATE: 07/20/2010 13:25

Page 1 of 2

SAMPLE: **Air Cuttings**

Lab ID: 10073086-001A

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Sodium	223 mg/Kg-dry	EPA 6010B	167	07/22/10 7:00	07/22/10	GSR-CV
Chloride	756 mg/Kg-dry	EPA 300.0	58.1	07/21/10 12:33	07/22/10	HDP-CV
MBAS, calculated as LAS, mol wt 342 g/mol	13 mg/Kg	N SM5540C	2.5	07/20/10 8:25	07/20/10	BJW-CV
Percent Moisture	14.0 %	SM2540G		07/21/10 16:00	07/22/10	BJW-CV

SAMPLE: **Air Cuttings**

Lab ID: 10073086-001B

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	9.54 %	Moisture Calc.	0.01	07/21/10 9:40	07/22/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/22/10 9:50	07/22/10	IC-SA
pH	7.91@21.9°C	EPA 9045C		07/21/10 12:15	07/21/10	NFM-SA
Phosphorus	135 mg/kg-dry	EPA 365.3	6	07/22/10 11:00	07/23/10	MED-SA

SAMPLE: **Air Cuttings**

Lab ID: 10073086-001C

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	150 mg/Kg	EPA 9071		07/22/10 11:10	07/22/10	

Sample Note: Analysis performed by Microbac-Erie

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10073086-001E

Composite

SAMPLED BY: SG

Sample Time: 07/13/2010 19:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	07/22/10 9:00	07/23/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/22/10 12:30	07/22/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

MANAGER

Carrie M. Davis

DATE: 7/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10073086

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10073086

PAGE: 2 of 2

PO#: AF77049

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702-Pad 13

RECEIVED FOR LAB BY: DLM2

DATE: 07/20/2010 13:25

Page 2 of 2

Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 12:30	07/22/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 12:30	07/22/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/22/10 12:30	07/22/10	GSR-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

MANAGER

Carrie M. Davis

DATE: 7/27/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10080775

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10080775

PAGE: 1 of 1

PO#: AF76317

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 13

RECEIVED FOR LAB BY: DLM2

DATE: 08/05/2010 9:50

Page 1 of 1

SAMPLE: Inv. Cuttings

Lab ID: 10080775-001A

Grab

SAMPLED BY: SG

Sample Time: 08/04/2010 12:36

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	62800 mg/Kg	EPA 9071	08/09/10 11:25	08/09/10	
Sample Note: Analysis performed by Microbac-Erie					

SAMPLE: Inv. Cuttings

Lab ID: 10080775-001B

Grab

SAMPLED BY: SG

Sample Time: 08/04/2010 12:36

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Moisture	32.5 %	Moisture Calc.	0.01	08/09/10 14:45	08/10/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	08/05/10 14:30	08/05/10	IC-SA
pH	7.95@22.0°C	EPA 9045C		08/06/10 14:21	08/06/10	SG-SA

SAMPLE: TCLP Leachate of Inv. Cuttings

Lab ID: 10080775-001D

Grab

SAMPLED BY: SG

Sample Time: 08/06/2010 7:45

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/09/10 9:00	08/10/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/09/10 10:30	08/09/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Zinc - TCLP extracted	0.223 mg/L	EPA 6010B	0.200	08/09/10 10:30	08/09/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 8/10/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY	
General Reference 287.54				Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix	
Municipality Warrendale			County Allegheny		
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-014) well pad site located at 335 Carey Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality		Ward		County Tioga	
State		PA			
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	1,959	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a. pH Range 5.81 to 10.08 (based on analyses or knowledge)					
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c. Physical Appearance Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003			
b.	Facility Name	Hyland Landfill		
	Address Line 1	6653 Herdman Road		
	Address Line 1			
	Address City State ZIP	Angelica	NY	14709
	Municipality	Angelica	County	Allegany
c.	Facility Contact Name	Larry Shilling		
	Title			
	Phone	(585) 466-7271	Email Address	larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 856 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lane		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 667 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010
- b. Facility Name: Hakes C&D Landfill
Address Line 1: 4376 Manning Ridge Road
Address Line 1:
Address City State ZIP: Painted Post NY 14870
Municipality: Erwin Twp County: Steuben
- c. Facility Contact Name: Joseph Boyles
Title:
Phone: (607) 937-6044 Email Address: joe.boyles@casella.com
(585) 466-7271
- d. Volume of waste shipped to processing or disposal facility in the previous year.
289 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
100945
- b. Facility Name: Cumberland County Landfill
Address Line 1: 135 Vaughn Road
Address Line 1:
Address City State ZIP: Newburg PA 17240
Municipality: Newburg Boro County: Cumberland
- c. Facility Contact Name: Dusty Hilbert
Title: Compliance Manager
Phone: (717) 729-5261 Email Address: dhilbert@iswaste.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
147 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10111574

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10111574

PAGE: 1 of 2

PO#: AF76317

PWS ID#

TEST REPORT

PHONE: (607) 731-0145
FAX: (607) 562-4001

DCNR58702 Pad 14

RECEIVED FOR LAB BY: SCP

DATE: 11/10/2010 8:43

Page 1 of 2

SAMPLE: **Air Cuttings**

Lab ID: 10111574-001A

Grab

SAMPLED BY: SG

Sample Time: 11/07/2010 18:19

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
Total Petroleum Hydrocarbons	13500 mg/Kg	EPA 9071		11/12/10 13:45	11/12/10	

Sample Note: Analysis performed by Microbac Laboratories, Inc.—Erie Division

SAMPLE: **Air Cuttings**

Lab ID: 10111574-001B

Grab

SAMPLED BY: SG

Sample Time: 11/07/2010 18:19

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
Moisture	38.0 %	Moisture Calc.	0.01	11/11/10 8:00	11/12/10	SG-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	11/09/10 17:30	11/09/10	IC-SA
pH	8.09@22.2°C	EPA 9045C		11/12/10 15:00	11/12/10	SG-SA

SAMPLE: **TCLP Leachate of Air Cuttings**

Lab ID: 10111574-001D

Grab

SAMPLED BY: SG

Sample Time: 11/11/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	11/13/10 12:30	11/14/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/13/10 8:30	11/13/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/13/10 8:30	11/13/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/13/10 8:30	11/13/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/13/10 8:30	11/13/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/13/10 8:30	11/13/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/13/10 8:30	11/13/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/13/10 8:30	11/13/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/13/10 8:30	11/13/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/13/10 8:30	11/13/10	RMD-CV
Zinc - TCLP extracted	0.275 mg/L	EPA 6010B	0.200	11/13/10 8:30	11/13/10	RMD-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Cassie M. Davis

DATE: 11/16/2010

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10111574

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10111574

PAGE: 2 of 2

PO#: AF76317

PWS ID#

PHONE: (607) 731-0145

FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pad 14

RECEIVED FOR LAB BY: SCP

DATE: 11/10/2010 8:43

Page 2 of 2

SAMPLE: **Air Cuttings**

SAMPLED BY: SG

Lab ID: 10111574-001E

Composite

Sample Time: 11/07/2010 18:19

SLOG

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOG</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst*</u>
Sodium	173 mg/Kg	EPA 6010B	71.5	11/12/10 9:15	11/15/10	GSR-CV
Chloride	244 mg/Kg	EPA 300.0	52.0	11/11/10 16:32	11/11/10	HDP-CV

REMARKS:

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* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 11/16/2010

PAGE 1 OF 1

CONTAINER	SAMPLING POINT
-----------	----------------

IF YES, PLEASE ATTACH REQUIREMENTS

Please fill out all applicable areas completely

LAB USE ONLY

[illegible]

LAB USE ONLY

DELIVERED BY

client

TEMPERATURE UPON RECEIPT _____

8

°C

ARRIVAL ON ICE Y IN

RELINQUISHED BY:

DATE:

7/10/10

TIME:

843

RECEIVED BY:

DATE: _____

TIME:

RELINQUISHED BY:

DATE:

1, 1

TIME:

First

RECEIVED BY:

DATE:

TIME-

RELINQUISHED BY:

DATE: _____

1 1

TIME:

1. Introduction

RECEIVED BY:

DATE:

1710M

TIME:

040

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169

Fax: (570) 888-0717

Work Order: 10113522

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10113522

PAGE: 1 of 1

PO#: AF78273

PWS ID#

PHONE: (607) 731-0145

FAX: (607) 562-4001

TEST REPORT

DCNR58702 Pod 14

RECEIVED FOR LAB BY: SCP

DATE: 11/22/2010 12:33

Page 1 of 1

SAMPLE: **Inv. Cuttings**

Lab ID: 10113522-001A

Grab

SAMPLED BY: SG

Sample Time: 11/21/2010 9:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	3260 mg/Kg	EPA 9071	170	11/23/10 0:00	11/23/10	
Sample Note: Analysis performed by Microbac Laboratories, Inc.-Erie Division						

SAMPLE: **Inv. Cuttings**

Lab ID: 10113522-001B

Grab

SAMPLED BY: SG

Sample Time: 11/21/2010 9:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Moisture	37.9 %	Moisture Calc.	0.01	11/24/10 10:30	11/29/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	11/23/10 17:05	11/23/10	IC-SA
pH	6.72@23.9°C	EPA 9045C		11/23/10 14:00	11/23/10	SG-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**

Lab ID: 10113522-001D

Grab

SAMPLED BY: SG

Sample Time: 11/24/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	11/27/10 12:35	11/28/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/27/10 8:15	11/27/10	JRA-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/27/10 8:15	11/27/10	JRA-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/27/10 8:15	11/27/10	JRA-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/27/10 8:15	11/27/10	JRA-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/27/10 8:15	11/27/10	JRA-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/27/10 8:15	11/27/10	JRA-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/27/10 8:15	11/27/10	JRA-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/27/10 8:15	11/27/10	JRA-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/27/10 8:15	11/27/10	JRA-CV
Zinc - TCLP extracted	0.256 mg/L	EPA 6010B	0.200	11/27/10 8:15	11/27/10	JRA-CV

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

Carrie M. Davis

DATE: 11/30/2010

CHAIN OF CUSTODY

PAGE 1 OF 1

REPORT TO: Talisman / UEG
geowetlands@aol.com

W/O#: 10113522

ARE SPECIAL DETECTION LIMITS
NEEDED: ☐ YES / ☒ NO
IF YES, PLEASE ATTACH
IS A QC PACKAGE NEEDED?
☐ YES ☒ NO
IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

RESULTS ARE BEING USED FOR:
☐ NYDOH ☒ NYDEC ☒ PADEP
LANDFILL
☐ PERSONAL ☐ OTHER

CONTACT Steve Gridley

PH# 607-731-0145

FAX#

BILL TO: Talisman

PO# AF78273

PROJECT DESCRIPTION
DCNR 58702 Pad 14

SAMPLER SIGNATURE / AFFILIATION
SLG CDE

CONTAINER SAMPLING POINT

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT
PRESERVATIVE ADDED ON RECEIPT

Please fill out all
applicable areas
completely

LAB USE ONLY

DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVATIVE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
11/21/00	900	SO	E	SL	N	TPH			
2						pH			
3						TCLP 8 RCRA Metals + Cu, Ni, Zn			
4						Free Liquids / % Moisture			
5									
6						Perform BTEX ONLY IF the TPH			
7						exceeds 100,000 mg/Kg			
8									
9						72 HOUR TURNAROUND			
10						DAY TURNAROUND			
11									

LAB USE ONLY
DELIVERED BY: [Signature] TEMPERATURE UPON RECEIPT: 16.00 ARRIVAL ON ICE: 11/22/00

RELINQUISHED BY: [Signature]	DATE: 11/22/00	TIME: 1231	RECEIVED BY:	DATE: 11/22/00	TIME: 1233
RELINQUISHED BY:	DATE: 11/22/00	TIME:	RECEIVED BY:	DATE: 11/22/00	TIME:
RELINQUISHED BY:	DATE: 11/22/00	TIME:	RECEIVED BY: [Signature]	DATE: 11/22/00	TIME: 1233

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121726

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121726

PAGE: 1 of 3

PO#: AF77906

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 1 of 3

SAMPLE: Air or Gel Cuttings

Lab ID: 10121726-001A

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030	12/15/10 13:30	12/15/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: Air or Gel Cuttings

Lab ID: 10121726-001C

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	1000 mg/Kg	SW846 7.3	12/14/10 12:30	12/14/10	LTW-CV

SAMPLE: Air or Gel Cuttings

Lab ID: 10121726-001D

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
% Solids	68.91 % Wght.	SM2540B	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	18.97 % Wght.	EPA 160.4	12/10/10 8:00	12/14/10	NFM-SA

SAMPLE: TCLP Leachate of Air or Gel Cuttings

Lab ID: 10121726-001F

Grab

SAMPLED BY: SG

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	12/14/10 8:37	12/14/10	RHH-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

S Spike Recovery outside accepted recovery limits

MANAGER

Craig M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121726

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121726

PAGE: 2 of 3

PO#: AF77906

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

PWS ID#

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 2 of 3

2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/14/10 8:37	12/14/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

SAMPLE: **TCLP Leachate of Air or Gel Cuttings**

Lab ID: 10121726-001G

Grab

SAMPLED BY: SG

Sample Time: 11/24/2010 8:00

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Strontium - TCLP extracted	< 0.050 mg/L	EPA 6010B	0.050	11/27/10 8:15	11/27/10	JRA-CV

Sample Note: Sample for TCLP extracted Strontium was received on 11/22/10 at 12:33 by SCP.

SAMPLE: **TCLP Leachate of Air or Gel Cuttings**

Lab ID: 10121726-001H

Grab

SAMPLED BY: SG

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
pH	5.81@16.5°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA

SAMPLE: **ZHE Extract of Air or Gel Cuttings**

Lab ID: 10121726-001I

Grab

SAMPLED BY: SG

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

S Spike Recovery outside accepted recovery limits

MANAGER

Cassie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121726

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121726
PAGE: 3 of 3
PO#: AF77906
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 3 of 3

Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L	S EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA

SAMPLE: **ASTM Extract of Air or Gel Cuttings**

Lab ID: 10121726-001J

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
Chemical Oxygen Demand	307 mg/L	B HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA

SAMPLE: **ASTM Extract of Air or Gel Cuttings**

Lab ID: 10121726-001L

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
pH	7.99@16.5°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
Total Solids	1780 mg/L	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA

SAMPLE: **Air or Gel Cuttings**

Lab ID: 10121726-001M

Grab

SAMPLED BY: SG

Sample Time: 12/10/2010 10:25

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst*
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	12/15/10 15:45	12/15/10	

Sample Note: Analysis performed by Analytical Services, Inc.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY

Benc

PAGE 1 OF 1

REPORT TO: Talisman / UEG
geowetlands@aol.com

CONTACT: Steve Gridley
PH# 607-731-0145
FAX#

BILL TO: Talisman

PO# AF78274

PROJECT DESCRIPTION: 500R58702 Pad 14

SAMPLER SIGNATURE / AFFILIATION: [Signature] UEG

CONTAINER / SAMPLING POINT

2566 Pennsylv
PI

W/O#: 10121726

REFRIGERATE SAMPLES
AFTER COLLECTIONTRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

RESULTS ARE BEING USED FOR:
☐ NYDOH ☒ NYDEC ☒ PADEP
LANDFILL Mostoller
☐ PERSONAL OTHER

ARE SPECIAL DETECTION LIMITS

NEEDED: ☐ YES ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).ANALYSIS TO BE PERFORMED
(PER CONTAINER)

COMPOSITED ON RECEIPT
PRESERVATIVE ADDED ON RECEIPT

Please fill out all
applicable areas
completely

LAB USE ONLY

DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVATIVE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
12/8	17:45	SD	C	SG	N	Ignitability, Reactive Sulfide & Cyanide			
2			C			PCBs, Total Solids			
3			G			Total Volatile Solids			
4			C			Ammonia-Nitrogen			
5			C			Water Leaching Procedure: COD,			
6			C			Total Solids, Oil & Grease,			
7									
8									
9									
10									
11									

36 HOUR TURNAROUND
DAY TURNAROUND

LAB USE ONLY

DELIVERED BY

TEMPERATURE UPON RECEIPT

ARRIVAL ONCE Y/N

RELINQUISHED BY: [Signature]	DATE: 12/9/10	TIME: 1530	RECEIVED BY: [Signature]	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY: [Signature]	DATE: 12/9/10	TIME: 1545

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121748

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121748

PAGE: 1 of 3

PO#: AF78274

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 1 of 3

SAMPLE: **Inv. Cuttings**

Lab ID: 10121748-001A

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10	

Sample Note: Analysis performed by QC Laboratories

SAMPLE: **Inv. Cuttings**

Lab ID: 10121748-001C

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	0.3 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	940 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV

SAMPLE: **Inv. Cuttings**

Lab ID: 10121748-001D

Grab

SAMPLED BY: SG

Sample Time: 12/08/2010 17:14

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
% Solids	61.85 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	24.86 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**

Lab ID: 10121748-001F

Grab

SAMPLED BY: SG

Sample Time: 12/11/2010 12:45

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID # 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121748

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121748
PAGE: 2 of 3
PO#: AF78274
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 2 of 3

2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10 7:48	12/15/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA

SAMPLE: **TCLP Leachate of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001G Grab
Sample Time: 11/11/2010 8:00

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Strontium - TCLP extracted	< 0.050 mg/L	EPA 6010B	0.050	11/13/10 8:30	11/13/10	RMD-CV
Sample Note: Sample for TCLP extracted Strontium was received on 11/10/10 at 8:43 by SCP.						

SAMPLE: **TCLP Leachate of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001H Grab
Sample Time: 12/11/2010 12:45

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
pH	6.05@16.7°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA

SAMPLE: **ZHE Extract of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001I Grab
Sample Time: 12/13/2010 8:45

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Cassie M. Davis

DATE: 12/16/2010

PA ID #: 08-00380
NY ID #: 11216

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10121748

SEND DATA TO:

NAME: Dina Brown
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10121748
PAGE: 3 of 3
PO#: AF78274
PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNRS8702 Pad 14

RECEIVED FOR LAB BY: RML

DATE: 12/09/2010 15:45

Page 3 of 3

Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA

SAMPLE: **ASTM Extract of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001J Grab
Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Chemical Oxygen Demand	362 mg/L	B HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA

SAMPLE: **ASTM Extract of Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001L Grab
Sample Time: 12/10/2010 11:15

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
pH	10.80@17.9°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
Total Solids	1910 mg/L	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA

SAMPLE: **Inv. Cuttings**
SAMPLED BY: SG

Lab ID: 10121748-001M Grab
Sample Time: 12/08/2010 17:14

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Organic Halides	< 5.00 mg/kg	SW846/9023	5.00	12/15/10 15:45	12/15/10	

Sample Note: Analysis performed by Analytical Services, Inc.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY

Benchma

1 OF 1

REPORT TO: Talisman / UEG
geowetlands@aol.com

Ea:
2566 Pennsylvania
Phone
Fax:

W/O#: 10121748

SPECIAL DETECTION LIMITS

ED: ☐ YES ☒ NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

☐ YES ☒ NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

RESULTS ARE BEING USED FOR:

☐ NYDOH ☒ NYDEC ☒ PADEP
LANDFILL Mostoller
☐ PERSONAL OTHER

CONTACT Steve Gridley

PH# 607-731-0145

FAX#

BILL TO: Talisman

PO# AF 78274

PROJECT DESCRIPTION
DENISE 702 Pod 14SAMPLER SIGNATURE / AFFILIATION
[Signature] UEG

CONTAINER / SAMPLING POINT

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

An incomplete chain of custody may delay the
processing of your sample(s).ANALYSIS TO BE PERFORMED
(PER CONTAINER)COMPOSITED ON RECEIPT
PRESERVATIVE ADDED ON RECEIPT

LAB USE ONLY

Please fill out all
applicable areas
completely

1	Inv Cuttings	12/8	1714	SO	C	<i>[Signature]</i> N	Ignitability, Reactive Sulfide & Cyanide			
2					C		PCBs, Total Solids			
3	A - <i>[Signature]</i> , Ign.				G		Total Volatile Solids			
4	B - Reactivity				C		Ammonia-Nitrogen			
5	D - TS, TVS				C		Water Leaching Procedure: COD,			
6	E - T. Sample				C		Total Solids, Oil & Grease,			
7	F - TCLP BNA, <i>[Signature]</i>									
8	G - TCLP <i>[Signature]</i> Sr									
9	H - TCLP pH									
10	I - TCLP Vols.									
11	J - ASTM <i>[Signature]</i>									

LAB USE ONLY

DELIVERED BY

TEMPERATURE UPON RECEIPT

ARRIVAL NOTICE Y/N

RELINQUISHED BY: <i>[Signature]</i>	DATE: 12/9/10	TIME: 1530	RECEIVED BY: <i>[Signature]</i>	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY:	DATE: 1/1	TIME:
RELINQUISHED BY:	DATE: 1/1	TIME:	RECEIVED BY: <i>[Signature]</i>	DATE: 12/9/10	TIME: 1515



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54					DEP USE ONLY	
Date Prepared/Revised February 11, 2011					Date Received & General Notes	
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION						
Company Name Talisman Energy USA Inc.						
If a Subsidiary, Name of Parent Company Talisman Energy Inc.					EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2			
Company Address Last Line – City Warrendale			State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina		MI	Suffix	
Municipality Warrendale			County Allegheny			
Contact Phone (724) 814-5321		Ext		Contact Email Address dybrown@talismanusa.com		
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If 'No', describe location of waste generation and storage. <u>Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-017) well pad site located at 1247 Fallbrook Road, Ward Township, Tioga County, PA. Waste is stored in</u>						
<u>containers on site.</u>						
Municipality		Ward		County Tioga		State PA
SECTION B. WASTE DESCRIPTION						
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame	
810	Drill cuttings (oil and gas)	4,712	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time	
1. GENERAL PROPERTIES						
a. pH Range 6.17 to 7.50 (based on analyses or knowledge)						
b. Physical State		<input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)				
c. Physical Appearance		Color Greyish Black Odor Earthy/Slight Petroleum Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments				
2. CHEMICAL ANALYSIS ATTACHMENTS						
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
b. A detailed description of the waste sampling method is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
d. The results of the hazardous waste determination is attached.					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.					<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-0728-00004

b. Facility Name Chemung County Landfill
 Address Line 1 1690 Lake Street
 Address Line 1
 Address City State ZIP Elmira NY 14903
 Municipality Elmira County Chemung

c. Facility Contact Name Carla Canjar
 Title Environmental Manager
 Phone (585) 797-5941 Email Address carla.canjar@casella.com

- d. Volume of waste shipped to processing or disposal facility in the previous year.
 3,251 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
9-0232-00003

b. Facility Name Hyland Landfill
 Address Line 1 6653 Herdman Road
 Address Line 1
 Address City State ZIP Angelica NY 14709
 Municipality Angelica County Allegany

c. Facility Contact Name Larry Shilling
 Title
 Phone (585) 466-7271 Email Address larry.shilling@casella.com

- d. Volume of waste shipped to processing or disposal facility in the previous year.
 1,330 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
 If "Yes", list the general permit number or approval number.

- b. Volume of waste beneficially used in the previous year.
 0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
100361
- b. Facility Name McKean County Landfill
Address Line 1 19 Ness Lane
Address Line 1
Address City State ZIP Kane PA 16735
Municipality Sergeant Twp County McKean
- c. Facility Contact Name Mike Manderfeld
Title
Phone (814) 778-9931 Email Address manderfeld@gmail.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
131 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
- b. Facility Name
Address Line 1
Address Line 1
Address City State ZIP
Municipality County
- c. Facility Contact Name
Title
Phone Email Address
- d. Volume of waste shipped to processing or disposal facility in the previous year.
☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

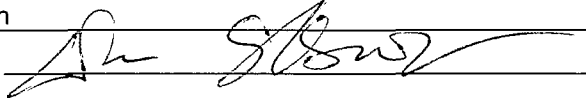
Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature



Date

2/25/14

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 09123366

SEND DATA TO:

NAME: Steve Gridley
COMPANY: United Environmental Group
ADDRESS: 1738 Parker Road
Elmira, NY 14905

WO#: 09123366

PAGE: 1 of 3

PO#: AF74849

PWS ID#

PHONE: (607) 731-0145
FAX:

TEST REPORT

DCNR 58702-017

RECEIVED FOR LAB BY: DLM2

DATE: 12/28/2009 14:40

Page 1 of 3

SAMPLE: **Inv. Cuttings-bin**

Lab ID: 09123366-001A

Composite

SAMPLED BY: SG

Sample Time: 12/28/2009 10:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	42000 mg/Kg	EPA 1664A		12/29/09 13:00	12/29/09	DTG-CV

SAMPLE: **TCLP Leachate of Inv. Cuttings-bin**

Lab ID: 09123366-001C

Composite

SAMPLED BY: SG

Sample Time: 12/29/2009 7:30

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.2	12/29/09 10:30	12/30/09	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	12/29/09 13:15	12/29/09	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	100	12/29/09 13:15	12/29/09	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	1	12/29/09 13:15	12/29/09	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	5	12/29/09 13:15	12/29/09	RMD-CV
Copper - TCLP extracted	0.362 mg/L	EPA 6010B		12/29/09 13:15	12/29/09	RMD-CV
Lead - TCLP extracted	0.938 mg/L	EPA 6010B	5	12/29/09 13:15	12/29/09	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	Q EPA 6010B		12/29/09 13:15	12/29/09	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	1	12/29/09 13:15	12/29/09	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	Q EPA 6010B	5	12/29/09 13:15	12/29/09	RMD-CV
Zinc - TCLP extracted	0.268 mg/L	EPA 6010B		12/29/09 13:15	12/29/09	RMD-CV

SAMPLE: **Inv. Cuttings-bin**

Lab ID: 09123366-001D

Composite

SAMPLED BY: SG

Sample Time: 12/28/2009 10:00

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Moisture	24.4 %	MOISTURE CALC.		12/29/09 10:15	12/30/09	KAL-SA
pH	6.79@ 18.2°C	EPA 9045C		12/30/09 10:15	12/30/09	KAL-SA
% Solids	75.56 % Wght.	SM2540B		12/29/09 10:15	12/30/09	KAL-SA

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Q Due to matrix effects, not all quality control parameters met acceptance criteria

S Spike Recovery outside accepted recovery limits

MANAGER

DATE: 12/30/2009

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 09123366

SEND DATA TO:

NAME: Steve Gridley
COMPANY: United Environmental Group
ADDRESS: 1738 Parker Road
Elmira, NY 14905

WO#: 09123366

PAGE: 2 of 3

PO#: AF74849

PHONE: (607) 731-0145

FAX:

TEST REPORT

PWS ID#

DCNR 58702-017

RECEIVED FOR LAB BY: DLM2

DATE: 12/28/2009 14:40

Page 2 of 3

SAMPLE: **TCLP Leachate of Inv. Cuttings-bin**

Lab ID: 09123366-001E

Composite

SAMPLED BY: SG

Sample Time: 12/29/2009 7:30

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Pyridine - TCLP extracted	< 0.020 mg/L	EPA 8270C	5	12/29/09 9:00	12/29/09	ASC-CV
Hexachloroethane - TCLP extracted	< 0.020 mg/L Q	EPA 8270C	3	12/29/09 9:00	12/29/09	ASC-CV
Total Cresol - TCLP extracted	< 0.020 mg/L	EPA 8270C	200	12/29/09 9:00	12/29/09	ASC-CV
Nitrobenzene - TCLP extracted	< 0.020 mg/L	EPA 8270C	2	12/29/09 9:00	12/29/09	ASC-CV
Hexachlorobutadiene - TCLP extracted	< 0.020 mg/L	EPA 8270C	0.5	12/29/09 9:00	12/29/09	ASC-CV
2,4,6-Trichlorophenol - TCLP extracted	< 0.020 mg/L	EPA 8270C	2	12/29/09 9:00	12/29/09	ASC-CV
2,4,5-Trichlorophenol - TCLP extracted	< 0.020 mg/L	EPA 8270C	400	12/29/09 9:00	12/29/09	ASC-CV
2,4-Dinitrotoluene - TCLP extracted	< 0.020 mg/L	EPA 8270C	0.13	12/29/09 9:00	12/29/09	ASC-CV
Hexachlorobenzene - TCLP extracted	< 0.020 mg/L	EPA 8270C	0.13	12/29/09 9:00	12/29/09	ASC-CV
Pentachlorophenol - TCLP extracted	< 0.050 mg/L	EPA 8270C	100	12/29/09 9:00	12/29/09	ASC-CV
1,4-Dichlorobenzene	< 0.010 mg/L	EPA 8270C		12/29/09 9:00	12/29/09	ASC-CV

Sample Note: Due to matrix effects, not all quality control parameters met acceptance criteria

SAMPLE: **ZHE Extract of Inv. Cuttings-bin**

Lab ID: 09123366-001F

Composite

SAMPLED BY: SG

Sample Time: 12/29/2009 7:30

Test	Result	Method	Reg Limit	Analysis Start	Analysis End	Analyst *
Benzene	< 0.02 mg/L	EPA 8260B	0.5	12/29/09 8:24	12/29/09	CMD-SA
2-Butanone	< 0.20 mg/L	EPA 8260B	200	12/29/09 8:24	12/29/09	CMD-SA
Carbon tetrachloride	< 0.02 mg/L	EPA 8260B	0.5	12/29/09 8:24	12/29/09	CMD-SA
Chlorobenzene	< 0.02 mg/L	EPA 8260B	100	12/29/09 8:24	12/29/09	CMD-SA

REMARKS:

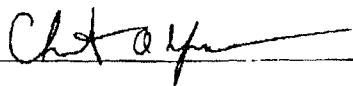
The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Q Due to matrix effects, not all quality control parameters met acceptance criteria

S Spike Recovery outside accepted recovery limits

MANAGER



DATE: 12/30/2009

LAB ID # 11216
LAB ID # 11827

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 09123366

SEND DATA TO:

NAME: Steve Gridley
COMPANY: United Environmental Group
ADDRESS: 1738 Parker Road
Elmira, NY 14905

WO#: 09123366

PAGE: 3 of 3

PO#: AF74849

PHONE: (607) 731-0145
FAX:

TEST REPORT

PWS ID#

DCNR 58702-017

RECEIVED FOR LAB BY: DLM2

DATE: 12/28/2009 14:40

Page 3 of 3

Chloroform	< 0.02 mg/L	EPA 8260B	6	12/29/09 8:24	12/29/09	CMD-SA
1,4-Dichlorobenzene	< 0.02 mg/L	EPA 8260B	7.5	12/29/09 8:24	12/29/09	CMD-SA
1,2-Dichloroethane	< 0.02 mg/L	EPA 8260B	0.5	12/29/09 8:24	12/29/09	CMD-SA
1,1-Dichloroethene	< 0.02 mg/L	EPA 8260B	0.7	12/29/09 8:24	12/29/09	CMD-SA
Trichloroethene	< 0.02 mg/L	EPA 8260B	0.5	12/29/09 8:24	12/29/09	CMD-SA
Tetrachloroethene	< 0.02 mg/L	EPA 8260B	0.7	12/29/09 8:24	12/29/09	CMD-SA
Vinyl chloride	< 0.02 mg/L S	EPA 8260B	0.2	12/29/09 8:24	12/29/09	CMD-SA

REMARKS:

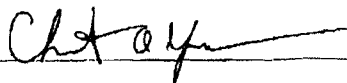
The above test procedures meet all the requirements of NELAC and relate only to these samples.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Q Due to matrix effects, not all quality control parameters met acceptance criteria

S Spike Recovery outside accepted recovery limits

MANAGER



DATE: 12/30/2009

CHAIN OF CUSTODY

Ber

PAGE 1 OF 1

REPORT TO: Fortuna

2566 Penn

W/O#: 09123366

ARE SPECIAL DETECTION LIMITS

NEEDED: YES / NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

YES NO

IF YES, PLEASE ATTACH REQUIREMENTS

REFRIGERATE SAMPLES
AFTER COLLECTION

RESULTS ARE BEING USED FOR:

 NYDOH NYDEC PADEP
 LANDFILL Lebyne
 PERSONAL OTHER NTSWA

CONTACT

Steve GullyPH# 607-731-0145

FAX#

BILL TO:

FortunaPO# AF74849

PROJECT DESCRIPTION

DCRIS 8702-017

SAMPLER SIGNATURE / AFFILIATION

Steve Gully UKE

Container

Sample Point No./Type

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE
 DW DRINKING WATER SL SLUDGE
 GW GROUND WATER SO SOIL
 SW SURFACE WATER HZ HAZARDOUS
 WW WASTE WATER OTHER
 DE DEIONIZED WATER DI DISTILLED WATER

 H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
 S SULFURIC ACID AS ASCORBIC ACID
 N NITRIC ACID AC ACETIC ACID
 SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
 Thio SODIUM THIOSULFATE ZN ZINC ACETATE
 - NONE Hg MERCURIC CHLORIDE

PWS ID#

Location

Sample Point

DATE SAMPLED

TIME OF SAMPLING

SAMPLE MATRIX

SAMPLE TYPE - GRAB / COMPOSITE

SAMPLER INITIALS

PRESERVATIVE

Chlorine Residual
Total ☐ Free ☐An incomplete chain of custody may delay the
processing of your sample(s).ANALYSIS TO BE PERFORMED
(PER CONTAINER)COMPOSITED ON
RECEIPTPRESERVATIVE
ADDED ON RECEIPTPlease fill
out all
applicable
areas
completely.

LAB USE ONLY

1	<u>Env Cuttings - bin</u>	<u>12/28</u>	<u>1000</u>	<u>SO</u>	<u>C</u>	<u>B</u>	<u>N</u>	<u>TCLP & ACR Metals + Cu, Zn, Ni</u>				<u>- 001A-F</u>
2								<u>TPH</u>				
3								<u>pH</u>				
4								<u>70 solids % Moisture per Connie</u>				
5	<u>A. TPH</u>							<u>TCLP 8260 + 8270</u>				
6	<u>B. T. Sample</u>											
7	<u>C. TCLP Metals + Cu Ni Zn</u>											
8	<u>D. % Moisture, pH</u>											
9	<u>E. TCLP 8270</u>											
10	<u>F. TCLP vols</u>											
11												

48 Hr. Fresh.Due 12/30/09

LAB USE ONLY

DELIVERED BY

SC

TEMPERATURE UPON RECEIPT

2 °CARRIVAL ON ICE (Y) N

RELINQUISHED BY:

DATE:

10/28/09

TIME:

1438

RECEIVED BY:

DATE:

1 / 1

TIME:

1440

RELINQUISHED BY:

DATE:

1 / 1

TIME:

1440

RECEIVED BY:

DATE:

1 / 1

TIME:

1440

RELINQUISHED BY:

DATE:

1 / 1

TIME:

1440

RECEIVED BY:

DATE:

12/28/09

TIME:

1440Debbie McCarty



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY	
General Reference 287.54				Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina		MI 	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321		Ext		Contact Email Address dybrown@talismanusa.com	
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the DCNR 587 (02-018) well pad site located at 560 Fallbrook Road, Ward Township, Tioga County, PA. Waste is stored in containers on site.					
Municipality		Ward		County Tioga	
State		PA			
SECTION B. WASTE DESCRIPTION					
Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
810	Drill cuttings (oil and gas)	8,246	<input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		<input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a. pH Range 9.94 to --- (based on analyses or knowledge)					
b. Physical State <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure) </div> </div>					
c. Physical Appearance <div style="display: flex; justify-content: space-between;"> <div> Color Greyish Black Number of Solid or Liquid Phases of Separation One Describe each phase of separation. Soil and Rock Fragments </div> <div> Odor Earthy/Slight Petroleum </div> </div>					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
b. A detailed description of the waste sampling method is attached.			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
d. The results of the hazardous waste determination is attached.			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.			<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

- a. Solid waste permit number(s) for processing or disposal facility being utilized.
8-4630-00010
- b. Facility Name: Hakes C&D Landfill
Address Line 1: 4376 Manning Ridge Road
Address Line 1:
Address City State ZIP: Painted Post NY 14870
Municipality: Erwin Twp County: Steuben
- c. Facility Contact Name: Joseph Boyles
Title:
Phone: (607) 937-6044 (585) 466-7271 Email Address: joe.boyles@casella.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
3,549 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)
- a. Solid waste permit number(s) for processing or disposal facility being utilized.
9-0232-00003
- b. Facility Name: Hyland Landfill
Address Line 1: 6653 Herdman Road
Address Line 1:
Address City State ZIP: Angelica NY 14709
Municipality: Angelica County: Allegany
- c. Facility Contact Name: Larry Shilling
Title:
Phone: (585) 466-7271 Email Address: larry.shilling@casella.com
- d. Volume of waste shipped to processing or disposal facility in the previous year.
3,538 ☐ cu yd ☐ gal ☐ lb ☒ ton (check one)

2. BENEFICIAL USE

- a. Has the waste been approved for beneficial use? ☐ Yes ☒ No
If "Yes", list the general permit number or approval number.
- b. Volume of waste beneficially used in the previous year.
0 ☐ cu yd ☐ gal ☐ lb ☐ ton (check one)

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

- a. A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- b. A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached. ☒ Yes ☐ No
- c. If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached. ☐ Yes ☐ No ☒ N/A

SECTION C. MANAGEMENT OF RESIDUAL WASTE**1. PROCESSING OR DISPOSAL FACILITY(IES)**

The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.

a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004			
b.	Facility Name	Chemung County Landfill		
	Address Line 1	1690 Lake Street		
	Address Line 1			
	Address City State ZIP	Elmira	NY	14903
	Municipality	Elmira	County	Chemung
c.	Facility Contact Name	Carla Canjar		
	Title	Environmental Manager		
	Phone	(585) 797-5941	Email Address	carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 950 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361			
b.	Facility Name	McKean County Landfill		
	Address Line 1	19 Ness Lake		
	Address Line 1			
	Address City State ZIP	Kane	PA	16735
	Municipality	Sergeant Twp	County	McKean
c.	Facility Contact Name	Mike Manderfeld		
	Title			
	Phone	(814) 778-9931	Email Address	manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 209 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)			
2. BENEFICIAL USE				
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)			

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted: ☐ Form 26R
☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11

LAB ID: 08-00380
LAB ID: 39-00401

Benchmark Analytics, Inc.
Eastern Division

2566 Pennsylvania Ave.
Sayre, PA 18840

Phone: (570) 888-0169
Fax: (570) 888-0717

Work Order: 10042618

SEND DATA TO:

NAME: Steve Gridley
COMPANY: Talisman Energy USA, Inc.
ADDRESS: 337 Daniel Zenker Dr
Horseheads, NY 14845

WO#: 10042618

PAGE: 1 of 1

PO#:

PWS ID#

PHONE: (607) 562-4000
FAX: (607) 562-4001

TEST REPORT

DCNR 58702 Pad 18

RECEIVED FOR LAB BY: WCB

DATE: 04/19/2010 14:05

Page 1 of 1

SAMPLE: **Inv. Cuttings**

Lab ID: 10042618-001A

Composite

SAMPLED BY: SG

Sample Time: 04/19/2010 10:40

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/21/10 9:00	04/21/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/21/10 9:10	04/21/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/21/10 9:10	04/21/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/21/10 9:10	04/21/10	GSR-CV
Zinc - TCLP extracted	37.5 mg/L	EPA 6010B	1.00	04/21/10 9:10	04/21/10	GSR-CV
pH	9.94 @ 20.9 °C	EPA 9045D		04/20/10 13:25	04/20/10	SMH-CV
Percent Moisture	31.3 %	SM2540G		04/20/10 9:00	04/21/10	DMB-CV
Total Solids	687000 mg/Kg	SM2540G	5	04/20/10 9:00	04/21/10	DMB-CV

Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

SAMPLE: **Inv. Cuttings**

Lab ID: 10042618-001B

Grab

SAMPLED BY: SG

Sample Time: 04/19/2010 10:40

Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	69000 mg/kg	EPA 9071		04/26/10 11:15	04/26/10	

Sample Note: Analysis performed by Microbac - Erie Div.

REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 4/27/2010



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54				DEP USE ONLY Date Received & General Notes	
Date Prepared/Revised February 11, 2011					
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION					
Company Name Talisman Energy USA Inc.					
If a Subsidiary, Name of Parent Company Talisman Energy Inc.				EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place			Company Mailing Address Line 2		
Company Address Last Line – City Warrendale		State PA	Zip+4 15086	Phone (724) 814-5300	Ext
Company Contact Last Name Brown		First Name Dina	MI	Suffix	
Municipality Warrendale		County Allegheny			
Contact Phone (724) 814-5321		Contact Email Address dybrown@talismanusa.com			
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (03-013) well pad site located at 1456 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.					
Municipality Columbia		County Bradford		State PA	
SECTION B. WASTE DESCRIPTION					
Residual Waste Code 810	Residual Waste Code Description Drill cuttings (oil and gas)	Amount 7,456	Unit of Measure <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton		Time Frame <input type="checkbox"/> One Time
1. GENERAL PROPERTIES					
a. pH Range 8.9 to 11.3 (based on analyses or knowledge)					
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)					
c. Physical Appearance					
Color Greyish Black		Odor Earthy/Slight Petroleum			
Number of Solid or Liquid Phases of Separation One					
Describe each phase of separation. Soil and Rock Cuttings					
2. CHEMICAL ANALYSIS ATTACHMENTS					
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. A detailed description of the waste sampling method is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. The results of the hazardous waste determination is attached.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.				<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 101243		
b.	Facility Name	Northern Tier Solid Waste Authority	
	Address Line 1	108 Steam Hollow Road	
	Address Line 1		
	Address City State ZIP	Troy PA 16947	
	Municipality	West Burlington Twp	County Bradford
c.	Facility Contact Name	Charles Woodward	
	Title		
	Phone	(570) 297-4177	Email Address chuckwoodward@epix.net
d.	Volume of waste shipped to processing or disposal facility in the previous year. 3,047 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica NY 14709	
	Municipality	Angelica	County Allegany
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 2,261 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira NY 14903	
	Municipality	Elmira County	Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 1,845 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361		
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane PA 16735	
	Municipality	Sergeant Twp County	McKean
c.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931	Email Address manderfeld@gmail.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 187 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post NY 14870	
	Municipality	Erwin Twp County Steuben	
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044 (585) 466-7271	Email Address joe.boyles@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 99 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100955		
b.	Facility Name	Wayne Township Landfill	
	Address Line 1	264 Landfill Lane	
	Address Line 1		
	Address City State ZIP	McElhattan PA 17748	
	Municipality	Wayne County Clinton	
c.	Facility Contact Name	Jay B Alexander	
	Title	General Manager	
	Phone	(570) 769-6977	Email Address jalex@waynetwplandfill.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 17 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

SECTION D. CERTIFICATION

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.

Check the following, if applicable:

- ☐ I certify the information required in Section B-1, General Properties was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

- ☐ I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year _____ and has not changed.

Form Submitted:

☐ Form 26R

☐ Other (specify) _____

Date Submitted: _____

Name of Responsible Official

Title Environmental Specialist

Dina Brown

Signature 

Date 2/25/11



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Certificate of Analysis

Project Name:	Marcellus Shale	Workorder:	9822732
Purchase Order:		Workorder ID:	13 Well Pad: Inv Cutting

Mr. Steve Gridley
Fortuna
337 Daniel Zenker Drive
Horseheads, NY 14845

December 18, 2009

Dear Mr. Gridley,

Enclosed are the analytical results for samples received by the laboratory on Friday, December 11, 2009

ALSI is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Denise Brooks (Project Coordinator) or Anna G Milliken (Laboratory Manager) at (717) 944-5541

Please visit us at www.analyticallab.com for a listing of ALSI's NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALSI.

NOTE: ALSI has changed the report generation tool and while we have tried to retain the existing format, you will notice some changes in the laboratory report. Please feel free to contact ALSI in case you have any questions.

Analytical Laboratory Services, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.


Anna G Milliken
Laboratory Manager



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SAMPLE SUMMARY

Workorder: 9822732 13 Well Pad: Inv Cutting

Discard Date: 01/01/2010

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9822732001	13 Well Pad: Inv Cutting	Solid	12/7/09 15:57	12/11/09 15:45	Customer

Workorder Comments:

Notes

- Samples collected by ALSI personnel are done so in accordance with the procedures set forth in the ALSI Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference



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ANALYTICAL RESULTS

Workorder: 9822732 13 Well Pad: Inv Cutting

Lab ID: 9822732001

Date Collected: 12/7/2009 15:57

Matrix: Solid

Sample ID: 13 Well Pad: Inv Cutting

Date Received: 12/11/2009 15:45

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
TCLP VOLATILE ORGANICS									
Benzene	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
2-Butanone	ND		ug/L	200	SW846 8260B		12/18/09 03:57	DD	A
Carbon Tetrachloride	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
Chlorobenzene	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
Chloroform	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
1,2-Dichloroethane	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
1,1-Dichloroethene	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
Tetrachloroethene	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
Trichloroethene	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
Vinyl Chloride	ND		ug/L	20.0	SW846 8260B		12/18/09 03:57	DD	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	115		%	62-133	SW846 8260B		12/18/09 03:57	DD	A
4-Bromofluorobenzene (S)	92.7		%	79-114	SW846 8260B		12/18/09 03:57	DD	A
Dibromofluoromethane (S)	107		%	78-116	SW846 8260B		12/18/09 03:57	DD	A
Toluene-d8 (S)	111		%	76-127	SW846 8260B		12/18/09 03:57	DD	A
PETROLEUM HC's									
Total Petroleum Hydrocarbons (TPH)	32900		mg/kg	5380	SW846 8015D	12/14/09 TNC	12/15/09 15:24	KJH	A4
WET CHEMISTRY									
Free Liquids	Negative				SW846 9095		12/14/09 05:35	SDL	A
Moisture	2.1		%	0.1	SM20-2540 G		12/14/09 02:45	LJF	A
pH	8.20	1,2	pH_Units		SW846 9045D		12/12/09 05:16	SAD	A
Total Solids	97.9		%	0.1	SM20-2540 G		12/14/09 02:45	LJF	A
TCLP METALS									
Arsenic, Total	ND		mg/L	0.0090	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Barium, Total	1.0		mg/L	0.011	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Cadmium, Total	ND		mg/L	0.0022	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Chromium, Total	ND		mg/L	0.0060	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Copper, Total	0.057		mg/L		SW846 6010C		12/14/09 13:19	TED	
Lead, Total	0.071		mg/L	0.0067	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	12/14/09 BLB	12/14/09 17:42	BLB	A3
Nickel, Total	0.053		mg/L		SW846 6010C		12/14/09 13:19	TED	
Selenium, Total	ND		mg/L	0.022	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Silver, Total	0.0087		mg/L	0.0044	SW846 6010C	12/14/09 MNP	12/14/09 13:19	TED	A2
Zinc, Total	0.12		mg/L		SW846 6010C		12/14/09 13:19	TED	
TCLP SEMI-VOLATILES									
mp-Cresol	ND		ug/L	160	SW846 8270D	12/14/09 GMG	12/15/09 05:17	DRS	A1
o-Cresol	ND		ug/L	160	SW846 8270D	12/14/09 GMG	12/15/09 05:17	DRS	A1
1,4-Dichlorobenzene	ND		ug/L	60.0	SW846 8270D	12/14/09 GMG	12/15/09 05:17	DRS	A1
2,4-Dinitrotoluene	ND		ug/L	60.0	SW846 8270D	12/14/09 GMG	12/15/09 05:17	DRS	A1



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ANALYTICAL RESULTS

Workorder: 9822732 13 Well Pad: Inv Cutting

Lab ID: 9822732001

Date Collected: 12/7/2009 15:57

Matrix: Solid

Sample ID: 13 Well Pad: Inv Cutting

Date Received: 12/11/2009 15:45

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Hexachlorobenzene	ND		ug/L	60.0	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Hexachlorobutadiene	ND		ug/L	60.0	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Hexachloroethane	ND		ug/L	60.0	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Nitrobenzene	ND		ug/L	60.0	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Pentachlorophenol	ND		ug/L	320	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Pyridine	ND		ug/L	160	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
2,4,5-Trichlorophenol	ND		ug/L	160	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
2,4,6-Trichlorophenol	ND		ug/L	160	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	61		%	40-125	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Phenol-d5 (S)	26.7		%	13-49	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Terphenyl-d14 (S)	58.3		%	50-122	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
Nitrobenzene-d5 (S)	62.7		%	40-110	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
2-Fluorobiphenyl (S)	53.6		%	50-110	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1
2-Fluorophenol (S)	43.9		%	20-75	SW846 8270D	12/14/09	GMG	12/15/09 05:17	DRS	A1

TCLP LEACHATE

Extraction Fluid Used	1			SW846 1311	12/12/09 06:00	EL	A
Final pH	5.37	pH_Units		SW846 1311	12/12/09 06:00	EL	A
Preliminary pH after DI water	9.03	pH_Units		SW846 1311	12/12/09 06:00	EL	A
Preliminary pH after HCl	1.83	pH_Units		SW846 1311	12/12/09 06:00	EL	A

Sample Comments:

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly. Surrogate recovery could not be evaluated as a result of the dilution.

Anna G Milliken
Laboratory Manager



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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9822732 13 Well Pad Inv Cutting

PARAMETER QUALIFIERS\FLAGS

- [1] The solid pH measured in water was 8.198 at 20.6 degrees C.
- [2] This sample was received at the laboratory after the holding time for pH had expired.



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Environmental & Industrial Hygiene & Field Services

34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

Generated by A.S.I.

COC #:

ALSI Quot



Pg. 1
of
1

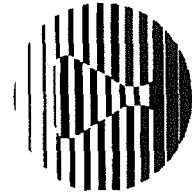
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: Fortuna Energy Inc. (FEI)				Container Type				Glass				Glass				Glass				Glass				Glass				Receipt Information (completed by Receiving Lab)																															
Address: 337 Daniel Zenker Drive				Container Size				4-oz				4-oz				4-oz				4-oz				Cooler Temp: 6				Therm ID: 5102359																															
Horseheads, New York 14845				Preservative				N				N				N				N				No. of Coolers: 1				Y N Initial																															
Contact: Steve Gidley				ANALYSES/METHOD REQUESTED																Custody Seals Present?				[X] (present) Seals Intact?				Received on Ice?				COC Labels Complete/Accurate?				Cont. in Good Cond.?				Correct Containers?				Correct Sample Volumes?				Correct Preservation?				Headspace/Volatiles?							
Phone#: 607-731-0145																																																											
Project Name/ID: 13 Well Pad Inv. Cuttings of 304				TCLP Metals: Ar, Ba, Cd, Cr, Pb, Hg, Se, Ag, Cu, Ni, Zn																TCLP Liquids (% Moisture)				TCLP B260 & B270				Courier/Tracking #:																															
Bill To: FEI AF 15760																																																											
TAT: Normal-Standard TAT is 10-12 business days. Rush-Subject to ALSI approval and surcharges.				Enter Number of Containers Per Sample or Field Results Below.																Sample/COC Comments																																							
Date Required: 10 Days Approved By:																																																											
Email? [X] -Y geowellands@aol.com & see comments				Sample Description/Location (as it will appear on the lab report)																Sample Date				Time				G or C				Matrix				SO				X				X				X				X				X			
Fax? [X] -Y No.:																																																											
13 Eick 13 Well Inv. Cuttings-Bins				12-7-07																13:57				C				SO				X				X				X				X				X											
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COMMENTS: Also Email Results to: twelling@rallysolutions.ca & phytkis@waynetripledfill.com & kathymstrong@epix.net				LOGGED BY (signature): [Signature] 12/11/07 1728																REVIEWED BY (signature): [Signature] 12/14/09 1700				Data Deliverables [X] Standard [] CLP-like [] USACE				Special Processing [] USACE [] Navy [] NY [] NJ [] PA [] NC				State																											
Relinquished By / Company Name																																																											
1 UEG				Date: 12/11/09 Time: 1545																Received By / Company Name				Date: 12/11/09 Time: 1545				Reportable to PADEP? Yes [X] 237061 PWSID # 101243				Sample Disposal Lab [X] Special []																											
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* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

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Rev 8/04



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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 26R
CHEMICAL ANALYSIS OF RESIDUAL WASTE
ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below. General Reference 287.54		DEP USE ONLY Date Received & General Notes	
Date Prepared/Revised February 11, 2011			
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION			
Company Name Talisman Energy USA Inc.			
If a Subsidiary, Name of Parent Company Talisman Energy Inc.		EPA Generator ID# N/A	
Company Mailing Address Line 1 50 Pennwood Place		Company Mailing Address Line 2	
Company Address Last Line -- City Warrendale	State PA	Zip+4 15086	Phone (724) 814-5300
			Ext
Company Contact Last Name Brown	First Name Dina	MI	Suffix
Municipality Warrendale		County Allegheny	
Contact Phone (724) 814-5321	Ext	Contact Email Address dybrown@talismanusa.com	
Is the waste generated at the Company Mailing Address (noted above)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the (01-023) well pad site located at 2556 East Canton Road, Granville Township, Bradford County, PA. Waste is stored in containers on site.			
Municipality Granville	County Bradford	State PA	
SECTION B. WASTE DESCRIPTION			
Residual Waste Code 810	Residual Waste Code Description Drill cuttings (oil and gas)	Amount 1,298	Unit of Measure <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton
Time Frame <input type="checkbox"/> One Time			
1. GENERAL PROPERTIES			
a. pH Range 8.23 to 10.20 (based on analyses or knowledge)			
b. Physical State <input type="checkbox"/> Liquid Waste (EPA Method 9095) <input checked="" type="checkbox"/> Solid (EPA Method 9095) <input type="checkbox"/> Gas (ambient temperature & pressure)			
c. Physical Appearance			
Color Greyish Black		Odor Earthy/Slight Petroleum	
Number of Solid or Liquid Phases of Separation One			
Describe each phase of separation. Soil and Rock Fragments			
2. CHEMICAL ANALYSIS ATTACHMENTS			
a. The results of a detailed chemical characterization of the waste, as described in the instructions, is attached.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. A detailed description of the waste sampling method is attached.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. The quality assurance/quality control procedures employed by the laboratory(ies) is attached.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. The results of the hazardous waste determination is attached.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. If applicable, a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis is attached.		<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post NY 14870	
	Municipality	Erwin Twp County Steuben	
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044	Email Address joe.boyles@casella.com
		(585) 466-7271	
d.	Volume of waste shipped to processing or disposal facility in the previous year. 502 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003		
b.	Facility Name	Hyland Landfill	
	Address Line 1	6653 Herdman Road	
	Address Line 1		
	Address City State ZIP	Angelica NY 14709	
	Municipality	Angelica County Allegany	
c.	Facility Contact Name	Larry Shilling	
	Title		
	Phone	(585) 466-7271	Email Address larry.shilling@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 85 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010		
b.	Facility Name	Hakes C&D Landfill	
	Address Line 1	4376 Manning Ridge Road	
	Address Line 1		
	Address City State ZIP	Painted Post NY 14870	
	Municipality	Erwin Twp County Steuben	
c.	Facility Contact Name	Joseph Boyles	
	Title		
	Phone	(607) 937-6044	Email Address joe.boyles@casella.com
		(585) 466-7271	
d.	Volume of waste shipped to processing or disposal facility in the previous year. 151 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100945		
b.	Facility Name	Cumberland County Landfill	
	Address Line 1	135 Vaughn Road	
	Address Line 1		
	Address City State ZIP	Newburg PA 17240	
	Municipality	Newbug Boro County Cumberland	
c.	Facility Contact Name	Dusty Hilbert	
	Title	Compliance Manager	
	Phone	(717) 729-5261	Email Address dhilbert@iswaste.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 72 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use? If "Yes", list the general permit number or approval number.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS			
a.	A detailed description of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, as specified in the instructions, is attached.		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c.	If portions of the information submitted are confidential, the substantiation for a confidentiality claim, as described in the instructions, is attached.		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION C. MANAGEMENT OF RESIDUAL WASTE			
1. PROCESSING OR DISPOSAL FACILITY(IES)			
The area below (a.-d.) will accommodate the identification of two facilities. Attach additional sheets if necessary.			
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 101243		
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira	NY 14903
	Municipality	Elmira	County Chemung
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941	Email Address carla.canjar@casella.com
d.	Volume of waste shipped to processing or disposal facility in the previous year. 15 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input checked="" type="checkbox"/> ton (check one)		
a.	Solid waste permit number(s) for processing or disposal facility being utilized.		
b.	Facility Name		
	Address Line 1		
	Address Line 1		
	Address City State ZIP		
	Municipality	County	
c.	Facility Contact Name		
	Title		
	Phone	Email Address	
d.	Volume of waste shipped to processing or disposal facility in the previous year. <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		
2. BENEFICIAL USE			
a.	Has the waste been approved for beneficial use?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If "Yes", list the general permit number or approval number.		
b.	Volume of waste beneficially used in the previous year. 0 <input type="checkbox"/> cu yd <input type="checkbox"/> gal <input type="checkbox"/> lb <input type="checkbox"/> ton (check one)		