District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr, Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

1891	)
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# Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances  OperatorHuntington Energy, L L C OGRID #208706  Address:908 N W 71 <sup>st</sup> St , Oklahoma City, OK 73116  Facility or well nameCanyon Largo Unit Com #471E  API Number: 30639.30800 OCD Permit Number:  U/L or Qtr/QtrC_ Section24 Township25N Range6W County:Rio Arriba			
Address:908 N W 71 <sup>st</sup> St , Oklahoma City, OK 73116  Facility or well nameCanyon Largo Unit Com #471E  API Number: 30059 30800 OCD Permit Number:  U/L or Qtr/QtrC_ Section24 Township25N Range6W County:Rio Arriba			
Address:908 N W 71 <sup>st</sup> St , Oklahoma City, OK 73116  Facility or well nameCanyon Largo Unit Com #471E  API Number: 30059 30800 OCD Permit Number:  U/L or Qtr/QtrC_ Section24 Township25N Range6W County:Rio Arriba			
Address:908 N W 71 <sup>st</sup> St , Oklahoma City, OK 73116  Facility or well nameCanyon Largo Unit Com #471E  API Number: 30059 30800 OCD Permit Number:  U/L or Qtr/QtrC_ Section24 Township25N Range6W County:Rio Arriba			
Factlity or well nameCanyon Largo Unit Com #471E  API Number:OCD Permit Number:  U/L or Qtr/QtrC_ Section24 Township25N Range6W County:Rio Arriba			
API Number:			
U/L or Qtr/QtrC_ Section24 Township25N Range6W County:R1o Arrıba			
— - · · · · · · · · · · · · · · · · · ·			
Center of Proposed Design. Latitude36.39154 N Longitude107 42248 W NAD· □1927 ☒ 1983			
Surface Owner: State Private Tribal Trust or Indian Allotment			
2			
☑ <u>Pit</u> : Subsection F or G of 19 15 17 11 NMAC			
Temporary 🔀 Drilling 🔲 Workover			
Permanent Emergency Cavitation P&A			
☐ Unlined Liner type. Thickness20mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other			
⊠ String-Reinforced			
Liner Seams Welded Factory Other Volume 4000_bbl Dimensions: L_90'_x W_30'x D_10'			
3.			
Closed-loop System: Subsection H of 19 15 17.11 NMAC			
Type of Operation P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)			
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other			
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other			
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other  Liner Seams. Welded Factory Other			
Below-grade tank: Subsection I of 19.15.17.11 NMAC			
Below-grade tank: Subsection I of 19.15.17.11 NMAC			
Volume:bbl Type of fluidProduced Water			
Volume:bbl Type of fluidProduced Water			
Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume:bbl Type of fluidProduced Water  Tank Construction material  Secondary containment with leak detection \( \triangle \tri			
Liner type: Thicknessmil _ HDPE _ PVC _ Other			
5. Alternative Method:			
Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval			

Fencing: Subsection D of 19 15 17 11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)			
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)			
Four foot height, four strands of barbed wire evenly spaced between one and four feet			
Alternate. Please specify			
7.			
Netting: Subsection E of 19.15.17 11 NMAC (Applies to permanent pits and permanent open top tanks)			
Screen Netting Other			
Monthly inspections (If netting or screening is not physically feasible)			
Signs: Subsection C of 19.15.17.11 NMAC			
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers			
Signed in compliance with 19 15.3 103 NMAC			
Administrative Approvals and Exceptions:			
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:			
Administrative approval(s). Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau of	office for		
consideration of approval  Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.			
10.			
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept	table source		
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approp	oriate district		
office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying			
above-grade tanks associated with a closed-loop system.			
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank - NM Office of the State Engineer - iWATERS database search; USGS, Data obtained from nearby wells	☐ Yes ☐ No		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	☐ Yes ☐ No		
- Topographic map; Visual inspection (certification) of the proposed site			
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No ☐ NA		
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo, Satellite image			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No ☐ NA		
(Applies to permanent pits) - Visual inspection (certification) of the proposed site, Aerial photo; Satellite image			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	☐ Yes ☐ No		
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No		
adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality			
Within 500 feet of a wetland.	☐ Yes ☐ No		
- US Fish and Wildlife Wetland Identification map, Topographic map; Visual inspection (certification) of the proposed site	☐ 165 ☐ 140		
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No		
Within an unstable area - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS, NM Geological	☐ Yes ☐ No		
Society; Topographic map			
Within a 100-year floodplain FEMA map	☐ Yes ☐ No		

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Form C-144 Oil Conservation Division Page 2 of 5

11				
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19 15 17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.				
Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17 9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15 17 9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17 10 NMAC  Design Plan - based upon the appropriate requirements of 19.15 17 11 NMAC				
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17.12 NMAC ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19 15.17.13 NMAC				
Previously Approved Design (attach copy of design) API Number or Permit Number				
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15 17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.				
Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19 15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19 15.17 11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC				
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19.15.17.13 NMAC				
Previously Approved Design (attach copy of design) API Number.				
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use				
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)				
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Laner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC				
Proposed Closure: 19.15 17 13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  The Desilies of Western Desilies of Western Desilies of Research Fig. 80 Desilies of Closed Loss Services.				
Type Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative				
Proposed Closure Method  Waste Excavation and Removal  Waste Removal (Closed-loop systems only)  On-site Closure Method (Only for temporary pits and closed-loop systems)  In-place Burial  Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)				
Waste Excavation and Removal Closure Plan Checklist: (19.15 17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.	Steel Tanks or Haul-off Bins Only: (19.15.17 13 I drilling fluids and drill cuttings. Use attachment if i	O NMAC) more than two		
Disposal Facility Name:	Disposal Facility Permit Number			
	Disposal Facility Permit Number.			
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  Yes (If yes, please provide the information below) No				
Required for impacted areas which will not be used for future service and operations  Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC				
Siting Criteria (regarding on-site closure methods only): 19 15 17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.				
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS, Dat	a obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS, Database search;	a obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search, USGS, Database search, US	a obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark)  - Topographic map, Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No		
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No		
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application	☐ Yes ☐ No		
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended  - Written confirmation or verification from the municipality, Written approx	•	Yes No		
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map, Topographic map, Visu	al inspection (certification) of the proposed site	☐ Yes ☐ No		
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Minin	g and Mineral Division	☐ Yes ☐ No		
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geolog Society, Topographic map	y & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No		
Within a 100-year floodplain FEMA map		☐ Yes ☐ No		
On-Site Closure Plan Checklist: (19 15 17 13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17 10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17 11 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19 15 17.11 NMAC  Protocols and Procedures - based upon the appropriate requirements of 19 15.17 13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17 13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15 17 13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19 15 17.13 NMAC				

Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Title:
Signature: Date
e-mail address: Telephone:
OCD Approval: Permit Application (including glosure plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature:  Approval Date: 12/9/201/  Title: OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:7/16/2010
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:  Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.  Disposal Facility Name.  Disposal Facility Permit Number.  Disposal Facility Permit Number.  Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  Yes (If yes, please demonstrate compliance to the items below)  No  Required for impacted areas which will not be used for future service and operations  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  □ Proof of Closure Notice (surface owner and division) □ Proof of Deed Notice (required for on-site closure) □ Plot Plan (for on-site closures and temporary pits) □ Confirmation Sampling Analytical Results (if applicable) □ Waste Material Sampling Analytical Results (required for on-site closure) □ Disposal Facility Name and Permit Number □ Soil Backfilling and Cover Installation □ Re-vegetation Application Rates and Seeding Technique □ Site Reclamation (Photo Documentation) □ On-site Closure Location Latitude36 39154 N Longitude107 42248 W NAD· □ 1927 ☑ 1983
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan  Name (Print)Catherine Smith Title Regulatory  Signature Date8/4/2010
e-mail address csmith@huntingtonenergy.com Telephone 405-840-9876

### **Cathy Smith**

From: Cathy Smith

Sent: Monday, June 14, 2010 10:17 AM

To: 'Powell, Brandon, EMNRD', 'mark\_kelly@nm.blm.gov'

Cc: Alan McNally, David Morales

Subject: Notification of Pit Closure. Huntington Energy, LLC, Canyon Largo Unit Com #471E

Notification of Pit Closure per NMOCD Pit Rule.

Canyon Largo Unit Com #471E

Lease # NMSF 079177 Com # NMNM 117734 API# 30-039-30827 NW, Lot C, 520' FNL & 1680' FWL

Sec 24, 25N-6W Rio Arriba Co , NM

Thank you.

Cathy Smith Huntington Energy, L.L.C. (405) 840-9876 ext 129

## Huntington Energy, L.L.C. Canyon Largo Unit Com #471E Sec 24, T25N-R6W Rio Arriba Co., NM

#### Soil Backfilling and Cover Installation

Upon completion of solidification and testing standards being passed (see attached test results) a minimum of 4 ft of cover is achieved including a suitable layer of material to establish vegetation at the site. All re-contouring of location will match fit shape, line, and texture of the surrounding area.

#### Re-Vegetation and Seeding Technique

Seeding shall commence on or about April 1<sup>st</sup>, or the first available growing season barring weather. BLM stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover consisting of at least three native plant species, including at least one grass, and maintain that cover through two successive growing seasons. Repeated seeding or planting will be continued until successful growth occurs.

#### **Temporary Pit Marker**

A steel marker will be placed at the center of the on-site burial. The steel marker will not be less than 4" in diameter and be cemented in a 3' hole. Marker shall extend 4' above ground level. Engraved into the marker will be the operator's name, and legal location. This marker shall not be removed. Note: during active operations, a ground level marker will be employed due to safety concerns; upon abandonment, the 4" x 4' marker will be employed.

#### **Disposal Facility**

Facility Name: IEI Permit #: NM-010010B



# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Huntington Energy	Project #:	06111-0002
Sample ID:	Pit Sample	Date Reported:	06-07-10
Laboratory Number:	54452	Date Sampled <sup>.</sup>	05-25-10
Chain of Custody No:	9477	Date Received:	05-26-10
Sample Matrix:	Soil	Date Extracted:	05-27-10
Preservative:		Date Analyzed:	06-01-10
Condition:	Plastic Bottle	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	10.7	0.2
Diesel Range (C10 - C28)	39.1	0.1
Total Petroleum Hydrocarbons	49.8	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments: CLLL 471E

Review

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	06-01-10 QA/G	QC	Date Reported:		06-07-10
Laboratory Number:	54474		Date Sampled:		N/A
Sample Matrix:	Methylene Chlor	ide	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		06-01-10
Condition:	N/A		Analysis Reques	ted:	TPH
	a divinibate	- iGalire	G.Ga: RE	:% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0019E+003	1 0023E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0350E+003	1.0354E+003	0.04%	0 - 15%
Islank Gongamelle (melks)).		- Concentration		Pejedionilin	ĬŪ
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
Digile (e (e inc.) inc. (inc.)	And Single Co.	Plupicate 4	Y& Difference in	Accept Renge	
Gasoline Range C5 - C10	9.6	8.8	8.3%	0 - 30%	
Diesel Range C10 - C28	5.5	4.9	10.9%	0 - 30%	
Spike Cone (malka)	¢w M Sample . €	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	9.6	250	280	108%	75 - 125%
Diesel Range C10 - C28	5.5	250	272	106%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 54452, 54472-54477, 54479-54481.



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Huntington Energy	Project #:	06111-0002
	0 0,		· -
Sample ID:	Pit Sample	Date Reported:	06-07-10
Laboratory Number	54452	Date Sampled:	05-25-10
Chain of Custody	9477	Date Received:	05-26-10
Sample Matrix	Soil	Date Analyzed:	06-03-10
Preservative:		Date Extracted:	05-27-10
Condition:	Plastic Bottle	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)		
, arameter	(uging)	(ug//\g/		
Benzene	9.6	0.9		
Toluene	38.8	1.0		
Ethylbenzene	13.5	1.0		
p,m-Xylene	36.7	1.2		
o-Xylene	21.7	0.9		
Total BTEX	120			

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	115 %
	1,4-difluorobenzene	110 %
	Bromochlorobenzene	114 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

**CLLL 471E** 



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #.	N/A
Sample ID:	0603BBLK QA/QC	Date Reported.	06-07-10
Laboratory Number.	54452	Date Sampled:	N/A
Sample Matrix	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-03-10
Condition:	N/A	Analysis:	BTEX

Gallbration and	A Participation	@agajj <b>at</b>	e % piff	Blank	Detect
Detection Limits (ug/L)		Accept Rang	(e)0	(0)01(c)	Limit
Benzene	3.1180E+006	3 1243E+006	0.2%	ND	0.1
Toluene	2 4132E+006	2 4181E+006	0.2%	ND	0.1
Ethylbenzene	1.9995E+006	2 0035E+006	0.2%	ND	0.1
p,m-Xylene	5.1992E+006	5.2096E+006	0.2%	ND	0.1
o-Xylene	2.0467E+006	2 0508E+006	0.2%	ND	0.1

Duplicate cons (colico):	Semple day subj	ijolioaje	a Wielijia - Wielijia	AccespoliRelates	Detect Limit
Benzene	9.6	8.7	9.4%	0 - 30%	0.9
Toluene	38.8	35.8	7.7%	0 - 30%	1.0
Ethylbenzene	13.5	10.8	20.0%	0 - 30%	1.0
p,m-Xylene	36.7	33.9	7.6%	0 - 30%	1.2
o-Xylene	21.7	19.1	12.0%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Semple: S. Amo	ivne Spikeal - Spik	ed Sample 🕮	% Recovery	Accept/Range
Benzene	9.6	50.0	59.7	100%	39 - 150
Toluene	38.8	50.0	79.7	89.7%	46 - 148
Ethylbenzene	13.5	50.0	60.8	95.7%	32 - 160
p,m-Xylene	36.7	100	112	81.8%	46 - 148
o-Xylene	21.7	50.0	59.4	82.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments:

QA/QC for Samples 54479-54481, 54452, 54472-54477.

#### EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Huntington Energy	Project #	06111-0002
Sample ID:	Pit Sample	Date Reported:	06-07-10
Laboratory Number:	54452	Date Sampled:	05-25-10
Chain of Custody No:	9477	Date Received:	05-26-10
Sample Matrix:	Soil	Date Extracted:	05-26-10
Preservative:		Date Analyzed:	05-26-10
Condition:	Plastic Bottle	Analysis Needed:	TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

81.2

24.3

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

**CLLL 471E** 



#### **EPA METHOD 418.1 TOTAL PETROLEUM HYROCARBONS QUALITY ASSURANCE REPORT**

Client: Sample ID:

QA/QC QA/QC Project #: Date Reported. N/A

Laboratory Number:

05-26-TPH.QA/QC 54415

Date Sampled:

06-07-10 N/A

Sample Matrix: Preservative:

Freon-113 N/A

Date Analyzed: Date Extracted: 05-26-10 05-26-10

Condition:

N/A

Analysis Needed:

TPH

I-Cal Date C-Cal Date 04/22/2010

05-26-10

I-Cal RF: 1,690

C-Cal RF % Difference Accept. Range 1,770

4.7%

+/- 10%

Blank Conc. (mg/Kg)

Concentration

**TPH** 

ND

Detection Limit 24.3

Duplicate Conc. (mg/Kg)

Sample

Duplicate

% Difference Accept. Range

TPH

52.8

39.9

24.4%

+/- 30%

Spike Conc. (mg/Kg) **TPH** 

Sample 52.8

Spike Added Spike Result 2,000

1,890

% Recovery 92.1%

Accept Range 80 - 120%

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

QA/QC for Samples 54415, 54416, 54420, 54429, 54452.



#### Chloride

Client: **Huntington Energy** Project #: 06111-0002 Sample ID: Pit Sample Date Reported: 06-07-10 Lab ID#: 54452 Date Sampled: 05-25-10 Sample Matrix: Soil Date Received: 05-26-10 Preservative: Date Analyzed: 05-28-10 Condition: Plastic Bottle Chain of Custody: 9477

Parameter

Concentration (mg/Kg)

**Total Chloride** 

50

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.

Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

**CLLL 471E** 

Analyst

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

Client: Huntington Energy CLLL 471 E  Client Address: Sampler Name:										ANAL	YSIS	/ PAR	AME	ΓERS				
Client Address: Sampler Name:					(2)	321)	(00											
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Alan Mchally Anthony Glient Phone No.: 405-767-3536 Ob111-	- 000	a a			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		TPH (418.1)	RIDE			Sample Cool	Sample Intact
Identification Date Time Lab No.	Sample Matrix	No /Volume of Containers	Preser HgCl <sub>2</sub> H	rvative	ТРН (	ВТЕХ	000	RCRA	Cation	22	TCLP	PAH	TPH (	CHLORIDE			Sampl	Sampl
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Dropped aff by Adrian envirotech  Email to Alan  Style Us Highway 64 · Farmington, NM 87401 · 505-632-0615 · lab@envirotech-inc.com																		
manally 5796 US Highw		And	alyti	ical	Lat	orc	itory	<b>/</b>										

DISTRICT I P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT III 1000 Rio Brazos Rd., Aziso, N.M. 87410

State of New Mexico
Energy, Minerals & Natural Résources Department

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

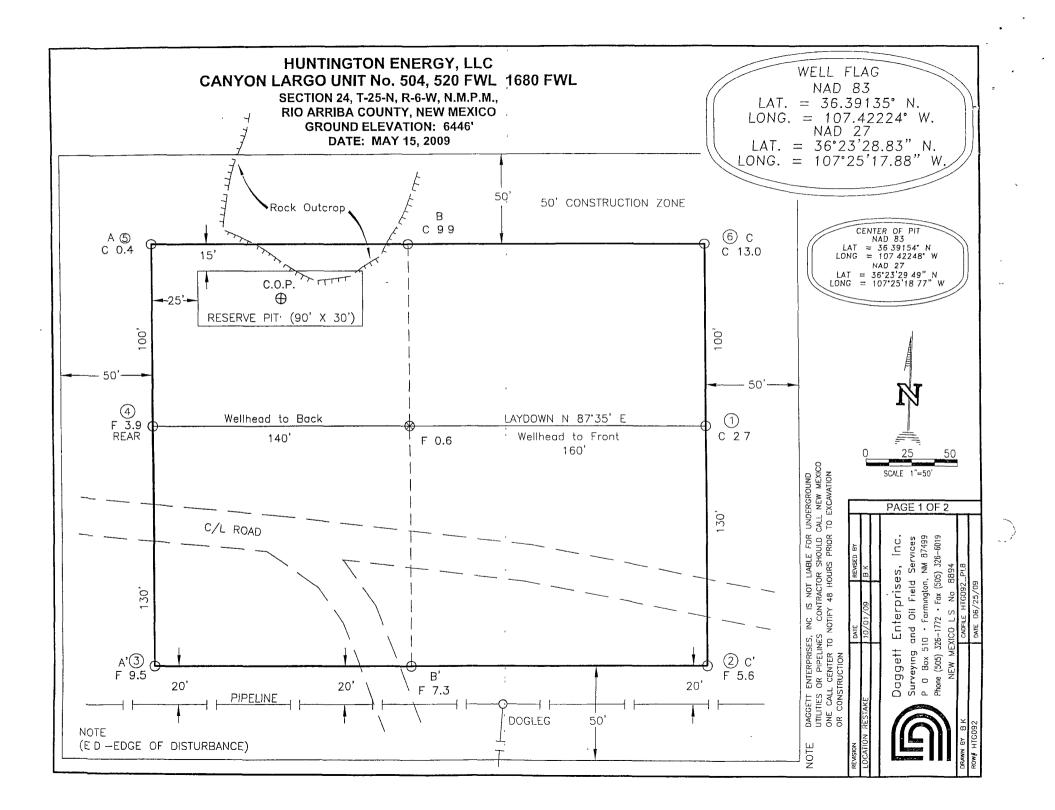
DISTRICT II 1501 W. Grand Avenue, Artesia, N.M. 88210

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87504-2088

DISTRICT IV 1220 South St, Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

,	anta Fe, NM 8	37505							
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<sup>4</sup> Property Code			11399	Property	Name	Dabin Da	I	* 7	Tell Number
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OGRID No.				*Operator					Elevation
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Canyon Largo Unit Com 471E 520' FNL 1680' FWL

NENW LOT C SEC. 24 T25N R6W

LEASE: NMNM117734 (COM)

API. #30-039-30827

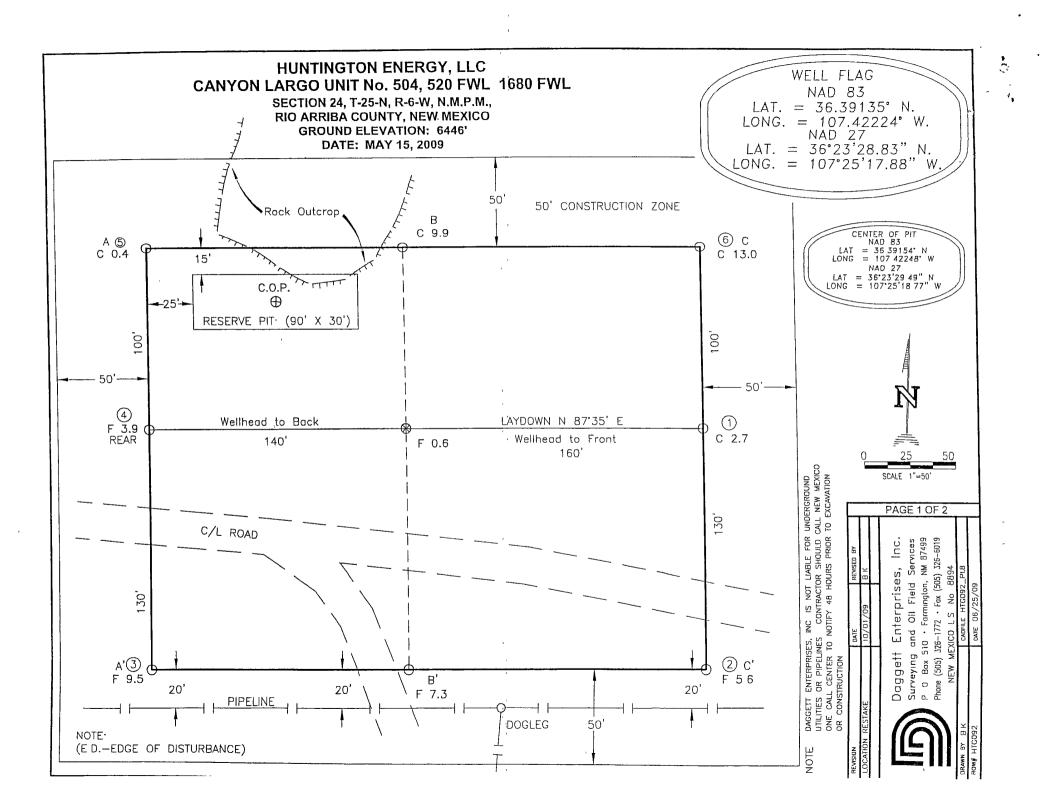
LATITUDE: 36.39135 N

LONGITUDE: 107.42224 W NAD 83 RIO ARRIBA COUNTY, NEW MEXICO EMERGENCY CONTACT: 1-405-840-9876

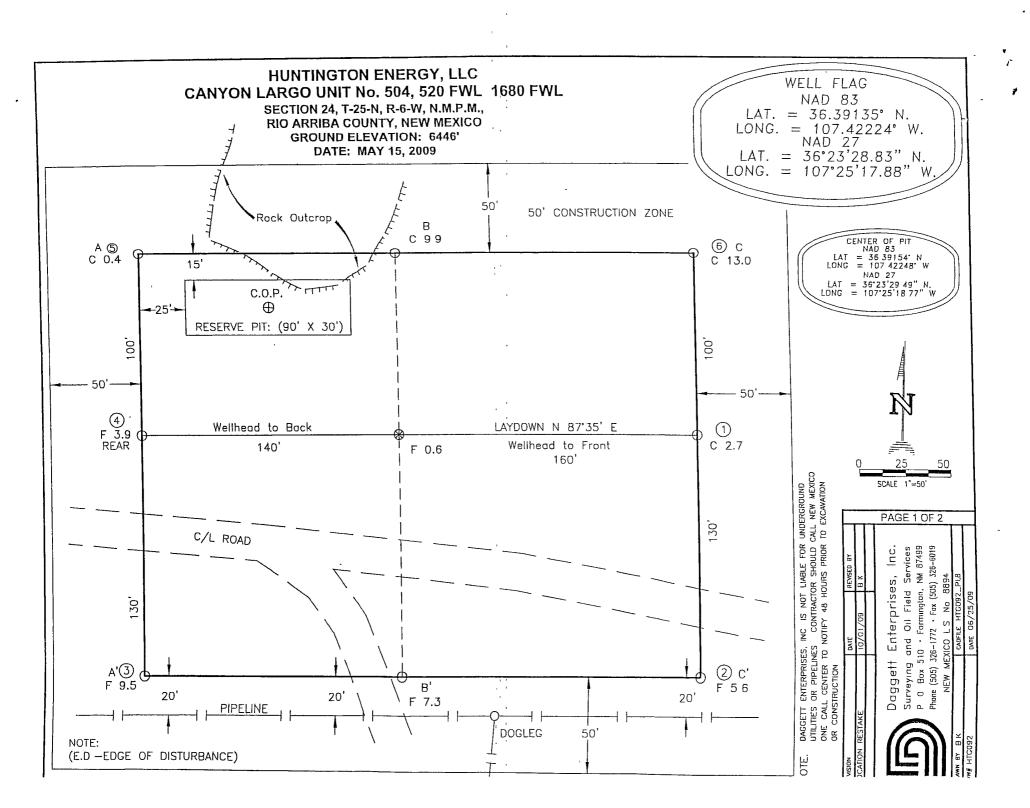
Canyon Cargo Unit Con #47/E

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District III	-				Conservat					2 Type of Le					
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1220 S St Francis					ETION RE										
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Submit To Aproop	riate Distr	nct Office				State of No	ew M	1exi	ico							Fc	rm C-105		
Two Copies District I				Er	ergy,	Minerals an	d Na	tural	l Res	sources							July 17, 2008		
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1301 W Grand Av District III	enue, Arte	esia, NM 8	8210			Off Conservation Division 2 Type of Lease													
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1220 S St Francis						Santa Fe, 1				3 State Oil & Gas Lease No NMSF 079177									
	WELL COMPLETION OR RECOMPLETION REPORT AND LOG																		
4 Reason for fil	ıng			,								5 Lease Name or Unit Agreement Name Canyon Largo Unit Com							
☐ COMPLET	ION RE	PORT (I	all in box	es #1 thro	ugh #31	for State and Fe	e wells	only)	)			6 Well Numb		Com					
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#33; attach this a	nd the pl	at to the	C-144 clo	sure repor	t in acco	rdance with 19 1	15 17 1	3 K N	MAC	)									
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31 List Attachme	·																		
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33 If an on-site b	urial was	used at t	ne well, r	eport the	exact loc		ite buri	ial				I amaitd-				3147	1027 1022		
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Canvon Largo Unit #471E Huntington Energy, L.L.C. San Juan Basin-Canvon Largo Unit Pit Closure Plan

Ccu 471E Permit#: 6686

In accordance with Rule 19 15 17 12 NMAC the following information describes the closure requirements of temporary pits on Huntington Energy, L.L.C (HE) locations This is HE's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of pit. Closure report will be filed on C-144 and include the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)-C102 w/pit on diagram-Submitted

Inspection Reports-attached

ROUD MOU 2R '1 1

Sampling Results-Envirotech-Submitted with C-144 Pit Closure

TIL COMS. DIV.

C-105- Submitted with C-144 Pit Closure

Copy of Deed Notice will be filed with County Clerk- N/A

DIST. 3

#### General Plan.

- 1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The facilities to be used for liquids will be IEI -NM-010010B and IEI will be used for solids (#01001010B). All recovered liquids were disposed of at Basin Disposal and solids were sent to IEI.
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met. Pit was closed using onsite burial.
- The surface owner shall be notified of HE's closing of the temporary pit.- Closure notification was sent via emailt o BLM/NMOCD-certified mail not required for Federal Land and BLM/NMOCD.
- Within 6 months of the rig off status occurring, HE will ensure that the temporary pits are closed, re-contoured and reseeded. Compliant with rule.
- Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email, or verbally The notification of closure will include the following:
  - i. Operator's name
  - Location by Unit Letter, Section, Township, and Range, Well name and API number Notification sent – filed with C-144 Pit Closure.
- Liner of temporary pit shall be removed above "mud level" after stabilization Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner Care will be taken to remove all of the liner. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100 Liner was removed above "mud level". Liner was removed by manually cutting liner at mud level 7 removing all remaining liner. All excessive liner was disposed of at Landfill.
- Pit contents shall be mixed with non-waste containing earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents. Pit contents were mixed with non-waste, earthen material that is safe & stable. The solidification process used a combination of natural drying and mechanically mixing. The mixing ratio was approximately 3:1.
- A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19 15 17 13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., dig and haul A five point composite sample was taken of the pit using sampling tools. All samples were tested per Subsection B 19.15.17.1 3(B)(1)(b). Results filed with C-144.

Components	Test Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	02
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300 1	1000/500

- Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. If standard testing fails, HE will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing so, confirmation sampling will be conducted to ensure a release has not occurred <a href="Pit material passed testing standards">Pit material passed testing standards</a>. The pit was then backfilled with compacted, non-waste containing earthen material.
- 10. During the stabilization process, if the liner is ripped by equipment, the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired, then all contents will be excavated and removed. **Liner was not damaged in the pit closure.**
- 11 Dig and Haul Material will be transported to IEI (Permit # 010010B) Not required.
- 12 Re-contouring of location will match fit, shape, line, form and texture of the surrounding Reshaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape. Pit area was re-contoured to match fit, shape, line form and texture of surroundings. Re-contour is uniform in appearance with smooth surface natural landscape.
- Notification will be sent to the OCD when the reclaimed area is seeded. <u>C-144 pit Closure Notice filed 8/4/2010</u>
- 14 HE shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (unimpacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeated seeding or planting will be continued until successful vegetative growth occurs.

Туре	Variety or Cultivator	PLS/A
Western Wheatgrass	Arriba	3.0
Indian Ricegrass	Paloma or Rimrock	3 0
Slender Wheatgrass	San Luis	2 0
Crested Wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2 0
Four-wing Saltbrush	Delar	0.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100 Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

Purity

Source No. two (better quality)

5 lb bulk seed required to make 2 lb bulk seed required to make

1 lb PLS 1 lb PLS

# The seeding above was used in 8/2010. After two successive growing seasons, HE will check for vegetative growth. If not successful, repeated seeding will be done.

15. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time all wells on the pad are abandoned The operator's information will include the following: Operator Name, Lease Name, Well Name and Number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location Steel marker was installed in the temporary pit, no less than four inches in diameter, cemented in a hole, 3 feet deep in center. Marker is flush with the ground to allow access of the active well pad. The top of the marker contains a welded steel 12" square plate that indicates the onsite burial of the temp pit. Operator name, Lease Name, Well Name & number, Section, Township and Range are all listed on the plate as an onsite burial location.

# HE Pit Inspection Log:

## **CLU 471E**

API#: 30-039-30827

Date	Visual Inspection
Drilling:	
4/10/10-4/19/10	ОК
Weekly Insp	
4/10-4/17	ОК
4/18-4/25	ОК
4/26-5/3	ОК
5/4-5/11	OK
5/12-5/19	ОК
5/20-5/27	OK
5/28-6/4	OK
6/5-6/12	OK
6/13-6/20	OK
6/21-6/28	OK
6/29-7/6	OK
7/7-7/14	OK
7/15-7/16	OK

Closed pit: 7/16/10

David Morales, Huntington Energy

PONTING TON ENGERY LEV. CANNON LARGO UNITEDIN I SEMSFO79 M/Z SEE COMBINE AND THE LAPINE ZOTOZOTZOCEL . NW/4-LOTC, SEC 24:

TEBUSEOW: ...

RIGARRISA CO NY