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

1	3	/	8

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

Type of action:

Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
Modification to an existing permit
Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve theoperator of hability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

Two does approval releve the operator of as responsibility to comply while any other applicable governmental authority's rules, regulations of ordinances
Operator Energen Resources OGRID # 162928
Address 2010 Afton Place, Farmington, New Mexico 87401
Facility or well name
API Number 3003921163 OCD Permit Number
U/L or Qtr/Qtr O Section 6 Township 25N Range 04W County Rio Arriba
Center of Proposed Design. Latitude 36 42437 Longitude -107 2889 NAD 1927 2324 20
U/L or Qtr/Qtr O Section 6 Township 25N Range 04W County Rio Arriba  Center of Proposed Design: Latitude 36 42437 Longitude -107 2889 NAD 1927 2324 25 26 25
Pit: Subsection F or G of 19 15 17 11 NMAC
Pit: Subsection F or G of 19 15 17 11 NMAC
Temporary Drilling Workover
Permanent Emergency Cavitation P&A
Lined Unlined Liner type Thicknessmil LLDPE HDPE PVC Other
String-Reinforced    Wolded   Footon:   Other   Wolded   Footon:   Other   Wolded   Footon:   Other   Wolded
Liner Seams
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
Liner Seams
Y Polony grada tanks. Subscatton Left 10.15, 17.11 NIMAC
X Below-grade tank:       Subsection I of 19 15 17 11 NMAC         Volume       bbl Type of fluid       Produced Water
Tank Construction material
Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner X Visible sidewalls only ☐ Other
Liner type Thickness mil  HDPE PVC Other
init is the true is the initial initia initial initial initial initial initial initial initial initial
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, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate Please specify	hospital,
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)	
8	
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 consideration of approval.  Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval	office for
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 material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a 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.	priate district pproval.
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)  - Topographic map, Visual inspection (certification) of the proposed site	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	Yes No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to permanent pits)  - Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock 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	Yes No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended  - Written confirmation or verification from the municipality, Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual 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-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 Society, Topographic map	☐ Yes ☐ No
Within a 100-year floodplain - FEMA map	☐ Yes ☐ No

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   Leak Detection Design - based upon the appropriate requirements of 19 15 17 11 NMAC   Liner 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.
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 ☐ On-site Trench 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 I of 19 15 17 13 NMAC
Stre Reclamation 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 S Instructions: Please indentify the facility or facilities for the disposal of liquids, diffacilities are required.							
Disposal Facility Name I	Disposal Facility Permit Number.						
Disposal Facility Name Disposal Facility Permit Number							
Will any of the proposed closed-loop system operations and associated activities occ ☐ Yes (If yes, please provide the information below) ☐ No	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?						
Required for impacted areas which will not be used for future service and operation.  Soil Backfill and Cover Design Specifications based upon the appropriate in Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19 15 17 13 NMAC of 19 15 17 13 NMAC	C					
Siting Criteria (regarding on-site closure methods only): 19 15 17 10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the comprovided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for	administrative approval from the appropriate distr Bureau office for consideration of approval. Justi	rict office or may be					
Ground water is less than 50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search, USGS, Data	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, Data	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, Data obtained from nearby wells							
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sign lake (measured from the ordinary high-water mark)  - Topographic map; Visual inspection (certification) of the proposed site	ificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No					
Within 300 feet from a permanent residence, school, hospital, institution, or church in Visual inspection (certification) of the proposed site, Aerial photo, Satellite		☐ Yes ☐ No					
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or sp - NM Office of the State Engineer - iWATERS database; Visual inspection (c	ring, in existence at the time of initial application	Yes No					
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written approva	·	☐ Yes ☐ No					
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual	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-Mining a	and Mineral Division	☐ Yes ☐ No					
Within an unstable area - Engineering measures incorporated into the design, NM Bureau of Geology Society, Topographic map	& 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 by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Signature Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate of a drying particle Protocols and Procedures - based upon the appropriate requirements of 19 15   Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Signature Maste Material Sampling Plan - based upon the appropriate requirements of Signature Soil Cover Design - based upon the appropriate requirements of Subsection I Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection I	prements of 19 15 17 10 NMAC Subsection F of 19.15 17 13 NMAC propriate requirements of 19 15 17 11 NMAC d) - based upon the appropriate requirements of 19.1 17.13 NMAC prements of Subsection F of 19 15 17 13 NMAC subsection F of 19 15 17 13 NMAC full cuttings or in case on-site closure standards cannot of 19 15 17 13 NMAC of 19 15 17 13 NMAC	15 17 11 NMAC					

Operator Application Certification:  I hereby certify that the information submitted with this application is true, accura	ate and complete to the best of my knowledge and belief
Name (Print) Tit	le·
Signature	Date
e-mail address:Telephone	
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan	
OCD Representative Signature:	Approval Date: 10/64/201
Title: Compliance Office	OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure plan prior to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure plan prior to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure plan prior to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure plan has been obtained and the closure plan has been plan has been obtained and the closure plan has been obt	o implementing any closure activities and submitting the closure report. he completion of the closure activities. Please do not complete this
	☑ Closure Completion Date: 9/29/10
22 Closure Method:  ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alterna ☐ If different from approved plan, please explain	tive Closure Method   Waste Removal (Closed-loop systems only)
23 Closure Report Regarding Waste Removal Closure For Closed-loop Systems	
Instructions: Please indentify the facility or facilities for where the liquids, drill two facilities were utilized.	ling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name	Disposal Facility Permit Number
Disposal Facility Name	
Were the closed-loop system operations and associated activities performed on or Yes (If yes, please demonstrate compliance to the items below) No	in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operation  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	ons
24 Cl	District to the death of the second property
Closure Report Attachment Checklist: Instructions: Each of the following ite mark in the box, that the documents are attached.	ems must be attached to the closure report. Please indicate, by a check
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	
	ude NAD □1927 □ 1983
25	
Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure rebelief. I also certify that the closure complies with all applicable closure requirem	
Name (Print) Ed Hasely	Title Sr Environmental Engineer
Signature 2 Hasely	Date 11/22/10
e-mail address ed hasely@energen com	Telephone. (505) 324-4131

# **BELOW-GRADE TANK CLOSURE REPORT**

# ENERGEN RESOURCES Jicarilla 123C #17

### **CLOSURE STEPS:** (Closure Report information is in **bold**)

- (1) Notify the surface owner by certified mail, return receipt requested, of the plans to close the below-grade tank.

  Attached
- (2) Notify the Aztec OCD office (Brandon Powell 334-6178, Ext 15) verbally or by other means at least 72 hours, but not more than one week, prior to the planned closure operation

#### Attached

- (3) Remove liquids from the below-grade tank. Dispose of the liquids and sludge in a division-approved facility. No disposal of liquids was required.
- (4) Remove the below-grade tank for re-use in an above-ground setup or for disposal in a division-approved manner. Tank removed.
- (5) Unless the equipment is required for some other purpose, remove any on-site equipment associated with the below-grade tank.

#### All remaining equipment is required for operations.

- (6) Test the soils beneath the below-grade tank to determine whether a release has occurred.
  - Collect, at a minimum, a five point, composite sample;
     Composite sample was collected.
  - Collect individual grab samples from any area that is wet, discolored or showing other evidence of a release;

No additional sampling was necessary.

Analyze for BTEX, TPH and chlorides to demonstrate:

- Benzene concentration does not exceed 0.2 mg/kg, as determined by EPA SW-846 methods 8021B or 8260B
- Total BTEX concentration does not exceed 50 mg/kg, as determined by EPA SW-846 methods 8021B or 8260B
- TPH concentration does not exceed 100 mg/kg, as determined by EPA method 418 1
- Chloride concentration does not exceed 250 mg/kg, as determined by EPA method 300.1 or the background concentration, whichever is greater

Constituent	Limit (mg/kg)	Actual Results (mg/kg)
Benzene	0.2	ND
Total BTEX	50.0	ND
TPH (418.1)	100	37.2
Chlorides	250	130

(7) <u>IF the soil analyses show that the soils meet the concentrations specified in (6) above</u>, backfill the excavation with compacted, non-waste containing, earthen material in a manner that will prevent ponding or erosion. If the area will not be needed for operations, reclaim the area as described in the "RECLAMATION" section.

Excavation was backfilled w/ non-waste containing, earthen material in a manner that will prevent ponding and erosion, including one foot on top soil.

(8) IF the soil analyses show that the soils exceed one or more of the concentrations specified in (6) above, notify the Aztec OCD office (Brandon Powell – 334-6178, Ext 15) and proceed per 19.15.3.116 NMAC.

Not applicable.

NOTE: If groundwater is encountered at any time during the closure process, the OCD office will be notified and a specific closure plan will be submitted to the Aztec and Santa Fe OCD offices for approval.

Not applicable.

#### **FINAL CLOSURE REPORT:**

Within 60 days of closure completion, submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results

This submittal is the closure report.

#### **RECLAMATION:**

If the area is not needed for operations, reclaim the area to a safe and stable condition that blends with the surrounding undisturbed area. Restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate

- (A) Construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material. The soil cover shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.
- (B) Seed or plant the disturbed areas the first growing season after closing the below-grade tank. Drill on the contour whenever practical or by other division-approved methods. The goal is to obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) 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. During the two successive growing seasons that prove viability, there shall be no artificial irrigation of the vegetation
  - (C) Repeat seeding or planting until it successfully achieves the required vegetative cover
- (D) If conditions are not favorable for the establishment of vegetation, such as periods of drought, contact the Aztec OCD office to discuss possibly delaying seeding or planting until soil moisture conditions become favorable or using additional techniques such as mulching, fertilizing, irrigating, fencing or other practices
- (E) Notify the Aztec OCD office (Brandon Powell 334-6178, Ext 15) when the area has been seeded or planted <u>and</u> when it successfully achieves re-vegetation.

Area is needed for operations. Upon abandonment, seeding will be deferred to the BLM / Tribal requirements per the BLM / OCD MOU.



#### Chloride

Client:	Energen Resources	Project #:	03022-0168
Sample ID:	Jic 123C #17	Date Reported:	08-20-10
Lab ID#:	55601	Date Sampled:	08-18-10
Sample Matrix	Soil	Date Received:	08-18-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Chain of Custody:	10214

ımeter					mg/Kg)		

Total Chloride 130

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: Jicarilla BGTs

Analyst Monpon

Review

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client <sup>.</sup>	Energen Resources	Project #.	03022-0168
Sample ID.	Jic 123C #17	Date Reported:	08-20-10
Laboratory Number:	55601	Date Sampled.	08-18-10
Chain of Custody No:	10214	Date Received:	08-18-10
Sample Matrix	Soil	Date Extracted:	08-19-10
Preservative:	Cool	Date Analyzed <sup>1</sup>	08-19-10
Condition:	Intact	Analysis Needed:	TPH-418.1

	 		*	Det.	
		Concentration		Limit	l
Parameter	 e. 100 me minemake etter e	(mg/kg)	······································	(mg/kg	)

Total Petroleum Hydrocarbons

37.2

23.8

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:

Jicarilla BGTs

Analyst

Revie



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen Resources	Project #.	03022-0168
Sample ID:	Jic 123C #17	Date Reported.	08-20-10
Laboratory Number.	55601	Date Sampled:	08-18-10
Chain of Custody:	10214	Date Received.	08-18-10
Sample Matrix.	Soil	Date Analyzed:	08-19-10
Preservative <sup>-</sup>	Cool	Date Extracted:	08-19-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)				
Benzene	ND	0.9				
Toluene	ND	1.0				
Ethylbenzene	ND	1.0				
p,m-Xylene	ND	1.2				
o-Xylene	ND	0.9				
Total BTEX	ND					

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.2 %
	1,4-difluorobenzene	95.8 %
	Bromochlorobenzene	97.4 %

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:

Jicarilla BGTs

Analyst

Review



August 9, 2010

Jicarilla Apache Nation Environmental Protection Office P.O. Box 507 Dulce, NM 87528

Attn: Mr. Dixon Sandoval, Environmental Specialist

Re: Below Grade Tank Closures Multiple Wells

Dear Sirs:

Energen Resources plans to close the below grade tanks located on the well locations listed below. You are on record as the surface owner where these wells are located. New Mexico Oil Conservation Division (NMOCD) rules require notification to the surface owner of our plans to close the below grade tanks. NMOCD rules and guidelines will be followed. The wells are all located in Rio Arriba County, New Mexico.

Jicarilla 120C #13 - Unit Letter L, Section 30, Township 25N, Range 5W

Jicarilla 123C #17 - Unit Letter E, Section 30, Township 25N, Range 5W

Jicarilla 123C #19 - Unit Letter D, Section 24, Township 26N, Range 3W

Jicarilla 123C #24 - Unit Letter O, Section 24, Township 26N, Range 3W

If there are any questions or concerns, please contact me at 505-324-4131.

Jec 123 Hultply Sincerely, COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete ☐ Agent item 4 if Restricted Delivery is desired. ☐ Addresse Print your name and address on the reverse so that we can return the card to you. beived by ( Printed Name) C. Date of Deliver Ed Hasely Attach this card to the back of the mailpiece, b (0 Sr. Environmental Engineer or on the front if space permits. D Is delivery address different from item 1? **Energen Resources** 1. Article Addressed to. If YES, enter delivery address below: ķ dicarilly Apach Netron EPO PO Box 507 Cc: Well Files Service Type Dulce NM 87528 Correspondence Certified Mail ☐ Express Mail Dixon Sandeval □ Registered ☐ Return Receipt for Merchandis ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) ☐ Yes 2 Article Number 7007 1490 0000 5397 4707

Energen Resources Corporation, an E-

PS Form 3811, February 2004

(Transfer from su

Domestic Return Receipt

GENTIFIED MAIL RECEIPI

Postmark Here

Postage Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees

Street, Apt No; or PO Box No.

City, State, ZIP+4

5397

102595-02-M-15

## **Ed Hasely**

From:

Ed Hasely

Sent:

Monday, August 09, 2010 1 41 PM

To:

'Powell, Brandon, EMNRD'

Subject:

BGT Notification - 4 Jicarilla Wells

Brandon – this is to notify you that Energen plans to close the below grade tanks that are located on the following locations:

Jicarilla 120C #13 - Unit Letter L, Section 30, Township 25N, Range 5W

Jicarilla 123C #17 - Unit Letter E, Section 30, Township 25N, Range 5W

Jicarilla 123C #19 - Unit Letter D, Section 24, Township 26N, Range 3W

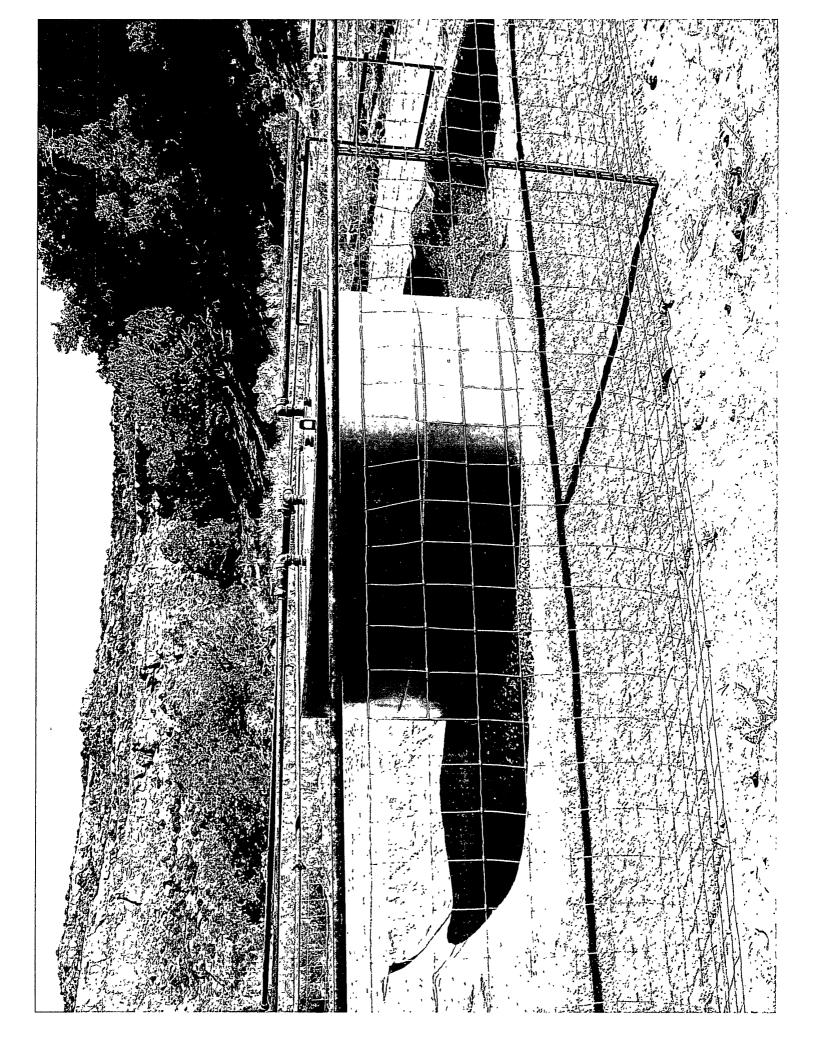
Jicarilla 123C #24 - Unit Letter O, Section 24, Township 26N, Range 3W

Let me know if you have any questions.

# **Ed Hasely**

**Energen Resources Corporation** 

Sr. Environmental Engineer ed hasely@energen com
Office (505) 324-4131
Cell (505) 330-3584



<u>District I</u> 1625 N French Dr , Hobbs, NM 88240 District III
1000 Rio Brazos Road, Aztec, NM 87410
District III District IV 1220 S St Francis Dr , Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

**Release Notification and Corrective Action** 

Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

_	7318	7	Relea	se Notification	on	and Corre	ctive Action	n			
/	210	>				<b>OPERATOR</b>	₹		nıtial Re	port 🛛 Final Repor	
Name of Company: Energen Resources, Inc				(	Contact: E	d Hasely					
Address: 2010 Afton Place, Farmington, NM 87401						Telephone No: 505-324-4131					
Facility Nar	ne: Jicarilla	123C #17	****		F	Facility Type: O	il/Gas Well Site				
Surface Owner: Tribal Mineral Owner				er: Tribal Lease No.							
LOCATION OF RELEASE											
Unit Letter	Section 6	Township 25N	Range 4W		Noi Sou	rth/South Line	Feet from the	East/W East	est Line	County Rio Arriba	
		I	Lati	tude 36.42437		Longitude	-107 28890				
					F. (	OF RELEAS	_				
Type of Relea	ise: NO REL	EASE		TVITOI		Volume of Release:   Volume Recovered:			ered:		
Source of Rel	ease:					Date and Hour of Occurrence:			Date and Hour of Discovery:		
Was Immedia	ate Notice G	iven?				If YES, To Who	om?	21316177 10 10 10 10 10 10 10 10 10 10 10 10 10			
☐ Yes ☐ No ☐ Not Required					d				EN .	10 B	
By Whom?						Date and Hour:			/Q #	16-11-11-12-12-12-12-12-12-12-12-12-12-12-	
Was a Watercourse Reached? ☐ Yes ☐ No					If YES, Volume Impacting the Watercourse.						
THERE WAS ONLY TO SA  Describe Are	NO PROBL ATISFY 19 I a Affected a	5 17 13 E(4)  nd Cleanup A  Formation give	EDIAL A	CTION TAKEN TH	o th	e best of my know	ledge and underst	E AS A (	COVER F	POR LAB ANALYSES -	
public health should their o or the environ	or the environ perations have ment In add	nment The ac	ceptance quately in D acceptai	of a C-141 report by	the iate	NMOCD marked contamination that the not relieve the	as "Final Report" at pose a threat to poperator of respon	does not ground w sibility fo	relieve th ater, surfa or complia	e operator of liability ace water, human health ance with any other	
Signature Softand				OIL CONSERVATION DIVISION							
Printed Name	Ed Hasely				A	Approved by District Supervisor					
Title	Sr Envir	onmental Engi	neer		A	Approval Date		Expiration Date			
E-mail Addre	ss <u>ed hasely</u> (	@energen com	1		Conditions of Approval			Att	ached [		
Date 2/14/11	l P	hone 505-324	1-4131 / 50	05-330-3584(cell)							

<sup>\*</sup> Attach Additional Sheets If Necessary