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

Name of Company

Address

Facility Name

Dugan Production Corp.

P.O. Box 420

Par #1

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

X Final Report

Initial Report

Kurt Fagrelius

505-325-1821

Permanent Pit

Release Notification and Corrective Action

Contact

OPERATOR

Telephone No

Facility Type

Surface Owner Federal Mineral Owner			vner]	r Federal . Lease No NM-86485				86485			
LOCATIO					ΓΙΟΝ	OF REI	LEASE				
Unit Letter	Section	Township	Range			outh Line	Feet from the	East/W	est Line	County	
A	11	23N	10W	790	Nor	th	550	Eas	st	San	Juan
Latitude 36.24661 N Longitude 107.85806 W											
NATURE OF RELEASE Type of Release Spill Cleanup and Pit Closure Volume of Release Volume Recovered N/A											
Type of Relea		l Clear	sure	Volume of			Volume R		N/A		
Source of Release Date and Hour of Occurrence? Date and Hour of Discovery-N/A Was Immediate Notice Given? If YES, To Whom?								covery-N./A			
was immedia	me Notice C		Yes [No 🛚 Not Req	uired	11 165, 10	whom' N/A	P		93031	123456>
By Whom ⁹						Date and H				PO POP	
Was a Water	course Read		Yes X	Late	!	If YES, Vo	lume Impacting th	he Water	rcourse /	S HF	CEIVED 3
									9		EC 2010
If a Watercou	ırse was Im	pacted, Descr	ibe Fully *	•					1	& n n co	ONS. DIV. DIST. 3
N/A									\	CONTRACTOR OIL CO	ONS. DIV. DIST. 3
IN/ F	1									/653	1,1813
Describe Cau	Describe Cause of Problem and Remedial Action Taken *										
During	perman	ent pit o	closure	e a TPH impa	ct wa	s disco	vered. A f	ive-r	ooint c	omposit	e sample
Ì				Analytic Me							
		_		-							
Describe Are 10-yards	a Affected of con	and Cleanup / taminated	Action Tak d soil	en* were dug fr	om pe	rmanent	pit and ha	auled	to Env	rirotech	land farm.
Once all	contam	inated so	oil had	l been remov	ed a	five-po	int composi	ite sa	ample w	as take	n and tested
								ing wa	as dete	rmined	to be 10. The
TPH relea	sse is :	not a thi	reat to	groundwate	r con	taminat	ion.	nderstan	d that hure	uant to NM	OCD rules and
regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability											
should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other											
federal, state, or local laws and/or regulations											
			-	/			011 0011	TENT	ATION	DIVISIO)N
	//			/			OIL CONS	SERV	111011	DIVIOL	/ 1 1
Signature	Kurt	Fac	re/s				OIL CONS	SERV.	17.01	. 1	/
Signature	Kuri	Fag	reli		-	pproved by		\wedge	ak		<u> </u>
Signature Printed Name	Kur i	Fagrel	relius		A	pproved by	OIL CONS	\wedge	Mark). Kally	<u> </u>
		Fagrel xplorat				pproved by	District Superviso	or Ç	Expiration I). Kally	}
Printed Name	VP E	xplorat	ion	oduction.com	A		District Superviso	or Ç	Maria). Palle Date	<u></u>
Printed Name Title E-mail Addre	VP E	xplorat relius@du	ion uganpro	oduction.com	A C	pproval Dat	District Superviso	or VE	expiration I). Kally	<u></u>



August 17, 2010

MIKE SANDOVAL

DUGAN PRODUCTION

P. O. BOX 420

FARMINGTON, NM 87499

RE. PIT CLOSURES

Enclosed are the results of analyses for samples received by the laboratory on 08/10/10 9:30.

Cardinal Laboratories is accredited through Texas NELAP for

Method SW-846 8021 Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260 Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method TX 1005

Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)

Method EPA 524,4

Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Celey E. Keine



Analytical Results For:

DUGAN PRODUCTION
MIKE SANDOVAL
P. O. BOX 420
FARMINGTON NM, 87499
Fax To (505) 327-4043

Received: Reported 08/10/2010

08/17/2010

Project Name Project Number Project Location PIT CLOSURES PAR #1 SEP PIT

NOT GIVEN

Sampling Date

ing bate

Sampling Type:

Sampling Condition.
Sample Received By

08/06/2010

Soil Cool & Intact

Cool & Intact
Jodi Henson

Sample ID: PAR #1 (H020597-01)

BTEX 8021B	mg/kg		Analyzed By: ZL						
Analyte	Result	Reporting Limit	Analyzerl	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2010	ND	0 917	917	1 00	7 96	
Toluene*	<0.050	0 050	08/13/2010	ND	0 981	98.1	1.00	16 9	
Ethylbenzene*	<0.050	0 050	08/13/2010	ND	0 977	97 7	1 00	4.07	
Total Xylenes ¹	< 0.150	0 150	08/13/2010	ND	3.15	105	3.00	5.79	
Surrogate 4-Bromofluorobenzene (PH	112	% 80-120)						
Chloride, SM4500CI-B	mg/kg		Analyzed By. HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	ES	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16 0	08/11/2010	ND	432	108	400	0.00	
TPH 418.1	mg,	/k g	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	88	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	1130	100	08/12/2010	ND	970	95.1	1020	1 82	
TPH 8015M	mg/kg		Analyzed By: AB						QM-05, S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10 0	08/11/2010	ND	162	80.8	200	0.217	
DRO >C10-C28	<10.0	10 0	08/11/2010	ND	163	815	200	1 77	
Surrogate 1-Chloroociane	76.8	"20 7()-13()	1						
Surrogate I Chlorooctadecane	6-8	% 70-130	ı						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE values and Damages. Cardinal labels, and clearly exclusive remeds to as ideal among uners base, i shipper i south part in the indication of control of the property of the propert

Celey & Keine -

Celev D. Keene, Lab Director/Quality Manager

Page 2 of 4



Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD

were within acceptance limits showing that the laboratory is in control and the data is acceptable

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or helow

· · · Insufficient time to reach temperature

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

FLESSE MOTE: Labolity and Damages. Cardinals habity and denote enclose remove for an usual ansance where passes in remove to one shall not like out another passes. It is a state to consider the another passes of the specified section. It we seek shall be desired as all the consideration of the another passes that the seek of the

Celey L. Keine.

Analytical

Page of CHAIN OF CUSTODY RECORD NOTES. Table 1. – Matrix Type FOR GAL USE ONLY Contact 1) Ensure proper container packaging 1 = Surface Water. 2 = Ground Water GALJOB# Address 2) Ship samples promptly following collection 3 = Soil/Sediment, 4 = Rinsate, 5 = Oil3) Designate Sample Reject Disposition 6 = Waste, 7 = Other (Specify) Phone Number Samplers Signature FAX Number Analyses Required Lab Name Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227 75 Suttle Street, Durango, CO 81303 Address Collection Miscellaneous Preservative(s) Unpreserved (Icc Only) Sample Filtered ? Y/N Collected by (lint.) No of Containers Other (Specify) Comments Sample ID Date Time H2SO4 NAOH HNG3 HCL. 8-6-10 3.20

Date & -6-10 Time 4:23

Date

* Sample Reject | | Return | | Dispose | | Store (30 Days)

Relinquished by

Relinquished by

5°C CHI #26

Received by

Page 4 of 4

Time

Envirotech 5796 US Hwy 64 Farmington, NM 87401 Phone 505-632-0615 Fax 505-632-1865



To

Dugan Production Corp PO Box 420

Farmington, NM 87401

Invoice

Invoice Number

22407

Job DATE 06094-0036

December 11,2008

Par #1- accept exempt contaminated soil

and oil from production stream

Ordered by Fred Cornish

Project Manager April Pohl

<u>Emplo</u>	<u>yee</u>	Staff Type	Description	<u>Units</u>		Rate	<u>Total</u>
12/08/2008	3						
Landfarm							
			BOL# 32173	1 00	ea	10 00	10 00
Paint F	ılter Test						
			BOL# 32173	1 00	ea	15 00	15 00
Chlorid	e Analysis-	·Water					
			BOL# 32173	10 00	су	18 00	180 00
Contan	ninated Soi	Receival					
•			Landfarm Total:	12.00			205.00
			12/08/2008 Total:	12.00		•	205.00
			Invoice Sub-total			×	205 00
			Sales Tax				12 68
Amour	nt due th	is Invoice					\$217 68

All invoices are due upon receipt. A late charge of 1 5% will be added to any unpaid balance after 30 days.

This may not be the final bill - if charges are received after this invoice has been mailed, you will receive a separate invoice for those costs.

Dugan Production

Par #1 Seperator Pit



Reference Point: Well Head

II.M XIST XIO.D

From Reference Point Go S 40 degrees S.W. For a Distance of 70' to Center of Pit.

Permanent pit: Par #1 API number: 30-045-28968

Results of sample analysis on the five-point composite sample collected on the subject permanent pit exceeded limits permissible under the "pit rule" (19.15.17.13.C) (see attached C-141 with analytic results).

The Environmental Bureau of the Oil Conservation Division (OCD) in Santa Fe is hereby provided a C-144 (closure report) and an "initial" C-141 (release notification) with analytic results of soil testing. The closure date on the C-144 (box 21) shows the date that the soil analysis did not meet pit rule standards. Also, this letter hereby provides notice that the subject permanent pit will be closed according to the requirements of the "spill rule" (19.15.30).

The OCD district office in Aztec is hereby provided a copy of the "initial report" C-141 (release notification) with analytic results of soil testing and also notice that the subject permanent pit will be closed according to the requirements of the "spill rule" (19.15.30). Assessment, clean-up and remediation of the reported spill will be done in accordance with the spill rule under the authority of the Aztec District office of the OCD. The "final report" C-141 with photo documentation of site reclamation will be sent to the Aztec District office of the OCD.

Following clean-up of the reported release and determination that the release is not a threat to groundwater contamination, the permanent pit will be closed in accordance with the approved C-144 (closure plan) and will include the following:

- 1. Stockpiled sub-surface soil will be used to backfill pit and re-contour (to a final or intermediate cover that blends with the surrounding topography). A minimum of fourfeet of compacted, non-waste containing, earthen material will be used as backfill.
- 2. Stockpiled surface soil will be used as a cover over the backfilled pit and disturbed area no longer needed for production operations. The soil cover will include either the background thickness of top soil or one-foot of suitable material to establish vegetation at the site whichever is greater. The soil cover will be constructed to the sites existing grade and prevent water collection or ponding and erosion of the cover material.
- 3. Disturbed areas will be seeded the first growing season after the pit is closed. Seeding will be accomplished by drilling on contour whenever possible or by other division approved methods. BLM stipulated seed mixes will be used on all Federal lands and OCD approved seed mixes (administratively approved if required) will be used on all State or private lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two consecutive growing seasons. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Seeding or planting will be continued until successful vegetative growth occurs.
- 4. The Aztec District office of the OCD will be notified after each re-seeding operation and after successful re-vegetation has been achieved.

Kurt Fagrelius VP – Exploration, Dugan Production Corp. Farmington, New Mexico 87401 505-325-1821 (O), 505-320-8248 (C) kfagrelius@duganproduction.com

Lease Name:	Par #1					
API No 30-04	45-28968					
Site Specific I	nfromatio	on				
Depth to	267-ft	Distance to Surface	200-ft	Wellhead Protection Area	7,600-ft	
Groundwater		Water Body		Distance from Water Source		
Total Ranking	Score	7				<u> </u>
Depth to	Ranking	Distance to Surface	Ranking	Wellhead Protection Area	Ranking Score	Total Ranking
Groundwater	Score	Water Body	Score	Distance from Water Source	Yes =20, No=0	Score
<50-feet	20	<200-feet	20	<1000-feet from water source	0	
50 - 99	10	200 - 1000	10	<200-feet domestic water	0	
>100-feet	0	>1000-feet	0			10
	<u> </u>	Total	Ranking	Score	Sample	
		>19	10 - 19	0 - 9	Analysis	
Benzene (mg/kg) 10		10	10	<0.050		
BTEX (mg/kg)	T T	50	50	50	<0.150	
TPH (mg/kg)		100	1000	5000	<20	
Chorides (mg/kg) N.A		N.A.	N A.	64		
Note Analytic	l al method	L Is used for Benzene S	l W-846, B	I TEX SW-846, TPH 8015 and C	hlorides 4500-C	1-B
C-144 ranking	= 10 Re	elease does not pose	a threat to	groundwater contamination.		

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X

Par #1 Hydrogeologic Report

The Par #1 is located on Federal land (checkerboard area) on the Chaco Slope in San Juan County, New Mexico. The area is characterized by an arid, west sloping, gentle hilly terrain covered with sage, grass and isolated stands of pinon and juniper. It is well drained by numerous arroyos that carry water during seasonal periods (rainstorms and snowmelt) to the south.

A records search of the NM Office of the State Engineer –iWATERS database was conducted on a three square mile area centered on the Par #1 location (Exhibit 2). One water well was located 7,600-feet to the northeast (total depth 373-feet, depth to water is unknown). The results of the search are shown on Exhibit 1.

The main source of stock water in the region is encountered in valley-fill deposits in existing arroyos at shallow depths of approximately 15-50 feet below the surface. The below grade tank is not located in an arroyo; the closest arroyo is 200-feet to the west (Exhibit 2) (See Visual Inspection Certification).

The Nacimiento Formation extends from the surface down to a depth of 305-feet. Thin silty sands can occur near the base (285-305 feet). However, the sands are discontinuous, have high silt content and would not be expected to contain significant amounts of water.

The underlying Ojo Alamo Sandstone ranges from approximately 305-feet down to a depth of approximately 395-feet and is comprised of a coarse grained alluvial sandstone inter-bedded with lenses of mudstone and occasional conglomeratic sandstone. The Ojo Alamo may yield marginal quantities of water for livestock, however, the water quality is typically greater than 1,000 ppm total dissolved solids and high in sulfate (Stone, 1983).

The Fruitland Coal and Pictured Cliffs Sandstone from 1085-1265 contain groundwater and natural gas. The water quality is very poor (>15,000 ppm TDS), water that is recovered with natural gas production is disposed of in nearby salt water disposal wells (analysis of this water is available upon request from Dugan Production).

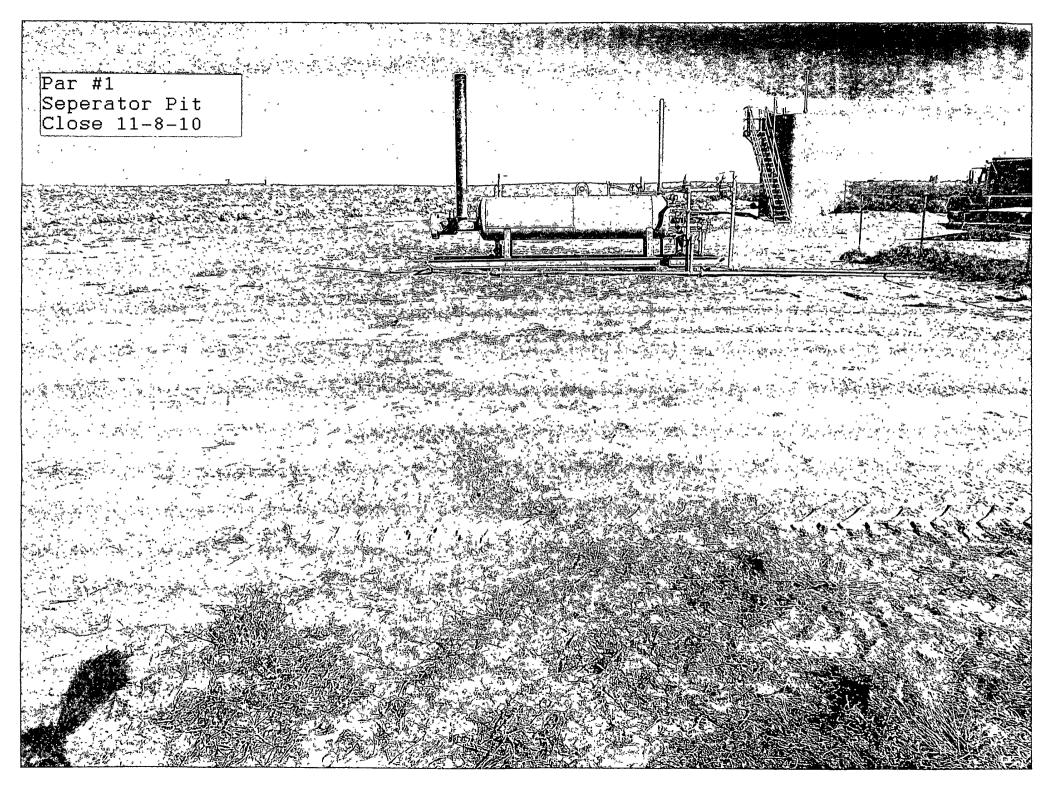
Based on electric open hole logs, the iWATERS database and literature reviewed, quality ground water might be found below at a depth of 267-280 feet from a laterally discontinuous, silty sand in the Nacimiento Formation. A deeper source of poor quality groundwater would be the Ojo Alamo Sandstone at 305-395 feet. Also, the Fruitland Coal and Pictured Cliffs interval at 1085-1265 feet should contain a larger quantity of very poor quality water.

This Hydrogeologic Report was prepared by Mr. Kurt Fagrelius, Geologist for Dugan Production. Mr. Fagrelius has been employed as a geologist for Dugan for the past 31-years, received a MS in Geology from NMIMT in Socorro, NM and a BS in Geology from FLC in Durango, CO.

- Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico. New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.
- Brown, D.R., and Stone, W.J., 1979, Hydrogeology of Aztec quadrangle, San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrogeologic Sheet 1.
- Levings, G.W., Craigg, S.D., Dam, W.L. Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan Structural Basin, New Mexico, Colorado, Arızona and Utah: U S Geological Survey, Atlas HA-720-A. Sheet 1 and 2.
- Thorn, C.R., Levings, G W., Craigg, S.D., Dam, W.L., and 'Kernodle, J.M., 1990, Hydrogeology of the Ojo Alamo Sandstone in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-B, Sheet 1 and 2.







From:

Kurt Fagrelius

Sent:

Wednesday, November 03, 2010 10 43 AM

To:

'Powell, Brandon, EMNRD', 'dave mankiewicz@nm blm gov', 'Mark Kelly@nm blm gov'

Cc:

Johnny Lane

Subject:

72-Hour Notice to Close Permanent Pits

Attachments: 72-Hour Notice to Close 11-8-2010 xls

Mr Brandon Powell, Mr Dave Mankiewicz and Mr Mark Kelly

Dugan Production Corp is hereby giving notice that Dugan will be closing the permanent pits on the following well pads

- 1) April Surprise #5 & 6 Tank Battery
- 2) August #1
- 3) Champ #1 Production Tank
- 4) Champ #1 Separator
- 5) July Jubilee #3
- 6) Par #1

Site specific and soil analysis information for each permanent pit is included in the enclosed attachment

All are located on Federal Surface, and the

Permanent pits will be closed starting Monday November 8, 2010 thru Wednesday November 10, 2010

If you have any questions or require additional information, please contact me

Sincerely,

Kurt Fagrelius
Dugan Production Corp
709 East Murray Drive
Farmington, New Mexico 87401
505-325-1821 (O), 505-320-8248 (C)
kfagrelius@duganproduction com

Dugan Production Corp. Permanent Pits to be Closed on November 8, 2010

Lease Name	Aprıl Surprise #5 & 6 TB	August #1	Champ #1 Prod	Champ #1 Sep	July Jubilee #3	Par #1
API Number	30-045-25947	30-045-26520	30-045-26981	30-045-26981	30-045-25904	30-045-28968
Surface Owner - Notice Sent	Federal	Federal	Federal	Federal	Federal	Federal
Location - UL, Sec , Twp, Rge	B-7-23N-9W	M-35-24N-10W	C-5-23N-9W	C-5-23N-9W	I-29-24N-9W	A-11-23N-10W
Latitude	36.24701 N	36.26505 N	36.26105 N	36.26105 N	36.28293 N	36.24661 N
Longitude	107.82675 W	107.87149 W	107.92069 W	107.92069 W	107.81756 W	107 85806 W
C-144 Ranking Score	10	0	0	0	10	10
Benzene (mg/kg)	<0 100	<0.100	<0 100	<0.025	<0.050	<0.050
Betex (mg/kg)	<0 300	<0.300	<0 300	<0 075	<0 300	<0.150
TPH (mg/kg) - Analy Mthd	422 - 8015	250 - 418.1	650 - 418.1	<10 - 8015	<31 8 - 8015	<10 - 8015
Chlorides (mg/kg)	96	256	32	480	240	64
Total Yards Contaminated	72-yds	32-yds	60-yds	60-yds	36-yds	.12-yds
Soil Hauled to Landfarm						1

From: postmaster@duganproduction com

Sent: Wednesday, November 03, 2010 10 44 AM

To: Kurt Fagrelius

Subject: Delivery Status Notification (Relay)

Attachments: ATT06139 txt, 72-Hour Notice to Close Permanent Pits



ATT06139.txt (407 72-Hour Notice to

B) Close Perman...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

Brandon.Powell@state.nm.us

From: Sent: Subject: Powell, Brandon, EMNRD [Brandon Powell@state nm us] Wednesday, November 03, 2010 2 06 PM Read 72-Hour Notice to Close Permanent Pits

Your message

Lo.

Brandon.Powell@state.nm us

Subject:

was read on 11/3/2010 2:06 PM.

From:

Mark_Kelly@blm gov Wednesday, November 03, 2010 1 11 PM Sent:

To:

Kurt Fagrelius
72-Hour Notice to Close Permanent Pits Subject:

Return Receipt

Your 72-Hour Notice to Close Permanent Pits

document:

Mark Kelly/FFO/NM/BLM/DOI was

received

by:

at: 11/03/2010 01:10:49 PM

From:

System Administrator Johnny Lane

To:

Sent:

Subject:

Wednesday, November 03, 2010 10 43 AM
Delivered 72-Hour Notice to Close Permanent Pits

Your message

To:

Powell, Brandon, EMNRD; dave_mankiewicz@nm.blm.gov; Mark_Kelly@nm.blm.gov

Cc:

Johnny Lane

Subject:

72-Hour Notice to Close Permanent Pits 11/3/2010 10:43 AM

Sent'

was delivered to the following recipient(s).

Johnny Lane on 11/3/2010 10:43 AM

From:

Johnny Lane

Sent:

Wednesday, November 03, 2010 11 00 AM

To:

Kurt Fagrelius

Subject:

Read 72-Hour Notice to Close Permanent Pits

Attachments: ATT06169 txt

Your message

To Powell, Brandon, EMNRD, dave_mankiewicz@nm blm.gov; Mark_Kelly@nm.blm gov

Cc. Johnny Lane Subject: 72-Hour Notice to Close Permanent Pits

Sent: 11/3/2010 10·43 AM

was read on 11/3/2010 10 59 AM.