

For KCC Use:	
Effective Date:	
District #	
SGA? Yes No	

### KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form CB-1 March 2010 Form must be Typed Form must be Signed

≶

### CATHODIC PROTECTION BOREHOLE INTENT All blanks must be Filled

Must be approved by the KCC sixty (60) days prior to commencing well.

Expected Spud Date:	Spot Description:
month day year	
	Sec Twp S. R E W
OPERATOR: License#	feet from N / S Line of Section feet from E / W Line of Section
Name:	
Address 1:	
Address 2:	
City:	County:
Contact Person:	Facility Name:
Phone:	Borehole Number:
CONTRACTOR: License#	Ground Surface Elevation: MSI
Name:	Cathodic Borehole Total Depth: feet
Type Drilling Equipment:	Depth to Bedrock: feet
☐ Air Rotary ☐ Other	Water Information
Construction Features	Aquifer Penetration: None Single Multiple
Length of Cathodic Surface (Non-Metallic) Casing	Depth to bottom of fresh water:
Planned to be set:feet	Depth to bottom of usable water:
Length of Conductor pipe (if any): feet	Water well within one-quarter mile: Yes No
Surface casing borehole size: inches	Public water supply well within one mile: Yes No
Cathodic surface casing size: inches	Water Source for Drilling Operations:
Cathodic surface casing centralizers set at depths of:;;	☐ Well ☐ Farm Pond ☐ Stream ☐ Other
;;;;;	Water Well Location:
Cathodic surface casing will terminate at:	DWR Permit #
Above surface  Surface Vault  Below Surface Vault	Standard Dimension Ratio (SDR) is =
Pitless casing adaptor will be used: Yes No Depth feet	(Cathodic surface csg. O.D. in inches / MWT in inches = SDR)
Anode installation depths are:;;;;;	Annular space between borehole and casing will be grouted with:
	Concrete Neat Cement Bentonite Cement Bentonite Clay  Anode vent pipe will be set at: feet above surface
;;;;;;	Anode conductor (backfill) material TYPE:
	Depth of BASE of Backfill installation material:
	Depth of TOP of Backfill installation material:
AFFIDAVIT	Borehole will be Pre-Plugged? Yes No
he undersigned hereby affirms that the drilling, completion and eventual plugging	g
of this well will comply with K.S.A. 55-101 et. seq.	
t is agreed that the following minimum requirements will be met:	
. Notify the appropriate District office prior to spudding and again before plugging the	e well. An agreement between the operator and the District Office on plugs
and placement is necessary prior to plugging. In all cases, notify District Office prior	
2. Notify appropriate District Office 48 hours prior to workover or re-entry.	
3. A copy of the approved notice of intent to drill shall be posted on each drilling rig.	
1. The minimum amount of cathodic surface casing as specified below shall be set by	grouting to the top when the cathodic surface casing is set.
	(form CB-1). b. File Certification of Compliance with Kansas Surface Owner Notification Act
(form KSONA-1) with Cathodic Protection Borehole Intent (CB-1) c. File Completic	n Form (ACO-1) within 30 days from spud date.
d. Submit plugging report (CP-4) within 30 days after final plugging is completed.	
Outrostated Flooring to all t	
Submitted Electronically	
For KCC Use ONLY	
API # 15	If this permit has expired or will not be drilled, check a box below, sign, date and return
Conductor pipe requiredfeet	to the address below.
Minimum Cathodic Surface Casing Required: feet	Parmit Evnicad Mall Net Drilled
	Permit Expired Well Not Drilled
Approved by:	
This authorization expires:	
(This authorization void if drilling not started within 12 months of approval date.)	
	Date Signature of Operator or Agent
Spud date: Agent:	

1255402

For KCC Use ONLY	
API # 15	

#### IN ALL CASES, PLEASE FULLY COMPLETE THIS SIDE OF THE FORM.

In all cases, please fully complete this side of the form. Include items 1 through 3 at the bottom of this page.

Operator:						_ Loc	ation of We	ell: County:
Facility Name:								feet from N / S Line of Section
Borehole Number: _								feet from E / W Line of Section
						Sec	D	Twp S. R
						ls S	Section:	Regular or Irregular
						If S	ection is I	rregular, locate well from nearest corner boundary.
							ction corne	
Chave la		0-4	Davahala	Chave fa		PLAT		it has under a line. Chasse the armediated least in a of
					-			it boundary line. Show the predicted locations of as Surface Owner Notice Act (House Bill 2032).
rease ro	aus, larik Di	atteries, pi	pelines an				y trie Karis plat if desi	
				100 111	ay allacir i	и воригию		5 ft.
				T			<u>ි</u>	– 175 ft.
	:	:	:		:	:		
		:						LEGEND
		· · · · · · · · · · · · · · · · · · · ·		•••••				O Well Location
	:	:	:		•		:	Tank Battery Location
	:	:	:		:	:	:	——— Pipeline Location
•••••				•••••				Electric Line Location
	:	:	:		:	:	:	
	:	:	:		:	:	:	Lease Road Location
•••••				•••••				
	:		:		:	:	:	
	:		: 3		:	:	:	EXAMPLE
	:	•	U :		:	:	:	
	:		:	I	:		:	
	:	•	:		:	:	:	
	:		:		:	:	:	
	:		:		:		:	
		:				:		1980' FSL
	:	:	:		:	:	:	
		:				:	:	
	:	:	: 			:		
	:	:	:		:	:	:	
	:		:		:	:		SEWARD CO. 3390' FEL
	:	:	:		:	:	:	SEMAND OC. GOOD I EE

NOTE: In all cases locate the spot of the proposed drilling locaton.

#### In plotting the proposed location of the well, you must show:

- 1. The manner in which you are using the depicted plat by identifying section lines, i.e. 1 section, 1 section with 8 surrounding sections, 4 sections, etc.;
- 2. The distance of the proposed drilling location from the section's south / north and east / west; line.
- 3. The predicted locations of lease roads, tank batteries, pipelines, and electrical lines.



### KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1255492

Form CDP-1 May 2010 Form must be Typed

### **APPLICATION FOR SURFACE PIT**

Submit in Duplicate

Operator Name:		License Number:			
Operator Address:					
Contact Person:		Phone Number:			
Lease Name & Well No.:			Pit Location (QQQQ):		
Type of Pit:  Emergency Pit  Burn Pit  Settling Pit  Drilling Pit	Pit is:  Proposed Existing  If Existing, date constructed:		SecTwp R East WestFeet from North / South Line of Section		
Workover Pit Haul-Off Pit (If WP Supply API No. or Year Drilled)	Pit capacity:	(bbls)	Feet from East / West Line of SectionCounty		
Is the pit located in a Sensitive Ground Water A	rea? Yes	No	Chloride concentration: mg/l (For Emergency Pits and Settling Pits only)		
Is the bottom below ground level?	Artificial Liner?	No	How is the pit lined if a plastic liner is not used?		
Pit dimensions (all but working pits):	Length (fee	et)	Width (feet) N/A: Steel Pits		
Depth fro	m ground level to dee	epest point:	(feet) No Pit		
material, thickness and installation procedure.		inter integrity, ii	ncluding any special monitoring.		
Distance to nearest water well within one-mile of	of pit:	Depth to shallor Source of inforr	west fresh water feet. nation:		
feet Depth of water wellfeet			well owner electric log KDWR		
Emergency, Settling and Burn Pits ONLY:		Drilling, Worko	over and Haul-Off Pits ONLY:		
Producing Formation:		Type of materia	ıl utilized in drilling/workover:		
Number of producing wells on lease:		Number of working pits to be utilized:			
Barrels of fluid produced daily:		Abandonment procedure:			
Does the slope from the tank battery allow all s flow into the pit? Yes No	pilled fluids to	Drill pits must be closed within 365 days of spud date.			
Submitted Electronically					
KCC OFFICE USE ONLY  Liner Steel Pit RFAC RFAS					
Date Received: Permit Numl	ber:	Permi	t Date: Lease Inspection: Yes No		



### Kansas Corporation Commission Oil & Gas Conservation Division

1255492

Form KSONA-1
January 2014
Form Must Be Typed
Form must be Signed
All blanks must be Filled

## CERTIFICATION OF COMPLIANCE WITH THE KANSAS SURFACE OWNER NOTIFICATION ACT

This form must be submitted with all Forms C-1 (Notice of Intent to Drill); CB-1 (Cathodic Protection Borehole Intent); T-1 (Request for Change of Operator Transfer of Injection or Surface Pit Permit); and CP-1 (Well Plugging Application).

Any such form submitted without an accompanying Form KSONA-1 will be returned.

Select the corresponding form being filed: C-1 (Intent) CB-1	(Cathodic Protection Borehole Intent)			
OPERATOR: License #	Well Location:			
Name:				
Address 1:	County:			
Address 2:	Lease Name: Well #:			
City:	If filing a Form T-1 for multiple wells on a lease, enter the legal description of			
Contact Person:	the lease below:			
Phone: ( ) Fax: ( )				
Email Address:				
Surface Owner Information:				
Name:	When filing a Form T-1 involving multiple surface owners, attach an additional			
Address 1:	sheet listing all of the information to the left for each surface owner. Surface owner information can be found in the records of the register of deeds for the			
Address 2:	county, and in the real estate property tax records of the county treasurer.			
City:				
the KCC with a plat showing the predicted locations of lease roads, tan	odic Protection Borehole Intent), you must supply the surface owners and the batteries, pipelines, and electrical lines. The locations shown on the plat on the Form C-1 plat, Form CB-1 plat, or a separate plat may be submitted.			
I certify that, pursuant to the Kansas Surface Owner Notice owner(s) of the land upon which the subject well is or will be	Act (House Bill 2032), I have provided the following to the surface located: 1) a copy of the Form C-1, Form CB-1, Form T-1, or Form being filed is a Form C-1 or Form CB-1, the plat(s) required by this and email address.			
KCC will be required to send this information to the surface of	acknowledge that, because I have not provided this information, the wner(s). To mitigate the additional cost of the KCC performing this s of the surface owner by filling out the top section of this form and KCC, which is enclosed with this form.			
If choosing the second option, submit payment of the \$30.00 handling form and the associated Form C-1, Form CB-1, Form T-1, or Form CP	g fee with this form. If the fee is not received with this form, the KSONA-1 -1 will be returned.			
Submitted Electronically				
I	_			



### **Cathodic Protection Installation Request**



Region:		Area:			Pipeline:	SADDLEHORN 2	20" CRUDE
Alignment Sheet:		Tract:	6918-7-WA-26	Mile Post:	174.320	Survey Station:	9203+85
State :	KANSAS	County:	WASHINGTON	Longitude:	-101.7394504	Latitude:	39.0466246
Section:	3	1/4 Sec.of 1/4:	NE1/4	Township:_	12S	Range:	40W
Power Company Contact and	SID MILLS 320 ACA	CIA DRIVE, GOODLA	ND KS, 67735 785.82	1.1469/785.899.5069			
Information:	STATION POWER						
Groundbed Type:	DEEP		Current Required:	50A	Soil Resistance: 1	0000	
Anode Type:	LIDA - MIXED META	LOXIDE	Number of Anodes:	12	Type of Backfill: L	ORESCO ENVIROCO	KE
Amount of Backfill:	240'		Type of Cable:	#6 KYNAR DUAL EXT	RUDED HMWPE	Amount of Cable:	450'
New Rectifier Required: (yes/no):	YES		Rectifier Type:	UNIVERSAL 40V/60A		Anode Depth:	395
Anode Spacing:	15'	Anode Hole Specs:	400' X 10"	Design Life:	20 YEARS		
Require	ed Installation Date:	03/31/16		Const	truction Company:		
Driving Directions	ON WEST SIDE OF	ROAD ON SOUTHSID	E OF WHITECLIFFS I	ORTH FOR 10.15 MILE PIPELINE STATION. C	GROUNDBED WILL E	E INSTALLED IN FRO	NT OF ROV #8 IN
Details:	STATION POWER						
Requested By:	TVANGOOR		Date	08/06/15			
Company No.			Operating Unit			Cost Center	

(original copy to livelink file)



The Public Health and Safety Organization

### **NSF Product and Service Listings**

These NSF Official Listings are current as of **Tuesday**, **August 11**, **2015** at 12:15 a.m. Eastern Time. Please <u>contact NSF International</u> to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=76110&Standard=060&

### NSF/ANSI 60 Drinking Water Treatment Chemicals - Health Effects

### Loresco International

421 J. M. Tatum Industrial Park Drive
Hattiesburg, MS 39401
United States
601-544-7490
Visit this company's website (http://www.loresco.com)

Facility: Hattiesburg, MS

#### **Miscellaneous Water Supply Products**

Trade Designation	Product Function	Max Use
LORESCO® PowerFill™	Other	[1]
LORESCO® Type RS.3®	Other	[1]
LORESCO® Type SC.3®	Other	[1]

[1] These products were evaluated to NSF/ANSI Standard 60, Section 8 for backfill applications with a maximum diameter of 15 inches and a maximum aquifer contact depth of 20 ft with an assumption of a minimum 1/2 acre aquifer of not less than 25% porosity (293,760 gallons).

Number of matching Manufacturers is 1

Number of matching Products is 3

Processing time was o seconds



# Loresco EnviroCoke IV<sup>™</sup> and PermaPlug<sup>™</sup> Specialty Backfills

### Protection For Environmentally Sensitive Areas

Contamination of underground aquifers is a major concern in today's environmentally conscious society. To prevent deep groundbed cathodic protection systems from polluting ground water in environmentally sensitive zones, PC&S supplies Loresco's EnviroCoke IV and PermaPlug specialty backfills.

EnviroCoke IV is a conductive carbon-based cementitious backfill with an extremely low permeability. It is designed to surround the casing at the discharge zones of a cathodic protection system and prevent the intermixing of waters held in separate aquifers. The material mixes with water, and can be easily pumped for placement around the well casing. After settling for 24 hours, the protective backfill becomes structurally stable.

PermaPlug is a non-conductive backfill designed to seal the entrance of a deep-anode-bed cathodic protection system. The backfill is made from naturally occurring bentonite rock, which swells when saturated with water to provide a leak-tight seal. This seal stops surface fluids from flowing into the well and contaminating potable water aquifers. The material does not require mixing, and can be poured directly into the hole at the surface of the deep anode bed. Because the material completely seals the entrance of the cathodic protection system, it is strongly advised that a



vent pipe be utilized to release gases and to provide access to the system so that water can be added if necessary.

#### **Typical Applications**

EnviroCoke IV and PermaPlug specialty backfills are designed for use in deep groundbed cathodic protection systems located in environmentally sensitive zones. Used in conjunction, the two backfills effectively protect underground aquifers from contamination. Both products have been tested according to EPA leacherate standards, and have been found to meet all quality requirements for materials utilized in underground burial. The backfills should be stored in a dry area prior to use.

#### **CHEMICAL COMPOSITION**

EnviroCoke IV	PermaPlug
49% Portland Cement	98% Bentonite
48.9% Fixed Carbon	2% Wetting Agents
0.1% Ash	_
0.0% Moisture	_
0.0% Volatile Matter	_

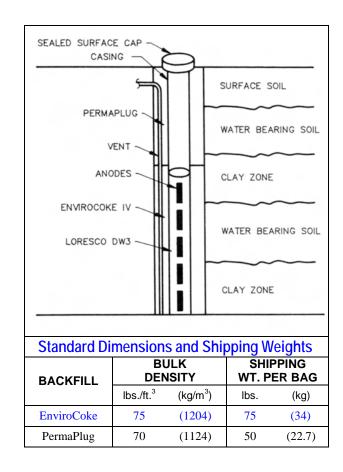
# Loresco EnviroCoke IV<sup>™</sup> and PermaPlug<sup>™</sup> Specialty Backfills

### **Ordering Procedure**

EnviroCoke IV and PermaPlug are supplied in 100 lb. and 50 lb. bags respectively. To order the required material for your installation project, indicate that you need EnviroCoke IV and/or the PermaPlug backfill, and specify the total pounds required. A chart has been provided to assist in calculating the total pounds necessary for various types of installations. An example is also included to help illustrate the ordering process.

Calculation Example				
ITEM	EXAMPLE			
Backfill Material	EnviroCoke			
Hole Diameter	6 in.			
Hole Depth	10 ft.			
Number of Holes	10			
Total Backfill Wt.	1,430 lbs.			
Total Bags Req'd	15			

	Calculation Chart						
Н	OLE	BACKFILL REQUIRED					
DIAN	METER	ENVIRO	COKE IV	PERM	APLUG		
in.	(mm)	lbs./ft.	(kg/M)	lbs./ft.	(kg/M)		
4	(102)	6.4	(9.5)	6.1	(9.1)		
6	(152)	14.3	(21.3)	13.7	(20.4)		
8	(203)	25.5	(38.0)	24.4	(36.4)		
10	(254)	39.8	(59.4)	38.2	(57.0)		
12	(305)	57.2	(85.3)	54.9	(81.9)		



# Safety Data Sheet Calcined Petroleum Coke Backfills

Issued 7/08/2015

Page 1 of 4

SECTION 1 -	SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION					
PRODUCT/CHEMICAL NAME:	Calcined Petroleum Coke	EMERGENCY PHONE NO.	(601) 544-7490			
OTHER IDENTIFICATION:	LORESCO® types RS.3, SC.3, SC.2, DW-1, SWK, SWS, and FlexFill.	HMIS/NEPA HAZARD RATING  4 = Extreme	Health			
PRODUCT USE:	Impressed Current Anode Backfill	3 = Serious 2 = Moderate 1 = Minimal	1 0			
COMPANY:	LORESCO, Inc. 421 J. M. Tatum Ind. Park Dr. Hattiesburg MS 39401		Other Reactivity			
SEC	CTION 2 - HAZAR	D IDENTIFICATION				
HAZARD CLASSIFICATION:	Mechanical abrasion	SYMBOL:	None			
SIGNAL WORD:	Warning	PRECAUTIONARY STATEMENT:	Wear safety glasses or goggles. Gloves are recommended. If there is excessive dust, a NIOSH approved respirator is recommended. Wash skin and hair thoroughly after handling.			
HAZARD STATEMENT:	Repeated or prolonged contact may cause irritation of eyes, skin or respiratory system.	OTHER HAZARDS:	None Identified			
SECTION 3 - Co	OMPOSITION/INF	ORMATION ON ING	REDIENTS			
CHEMICAL NAME:	Coke (Petroleum), calcined	Weight % (dry basis)	100			
COMMON NAME AND SYNONYMS:	Calcined petroleum coke	CAS NUMBER	64743-05-1			
S	<b>ECTION 4 - FIRST</b>	AID MEASURES				
HEALTH HA	ZARDS Avoid contact with	n eyes. Wash thoroughly after h	andling.			
EXPOSURE ROUTE	Į.	ACUTE	CHRONIC			
EYE CONTACT		ossible abrasive mechanical irritation. Dust dness. Flush eyes with plenty of water.	No data available			
INHALATION (Breathing)		ossible mechanical irritation. Possible gravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumontis (lung inflammation), coughing, and shortness of breath.			
INGESTION (Swallowing)	No significant health hazards expec discomfort occurs, seek medical att	ted. If large quantities are ingested, or ention.	No data available			
SKIN	First aid is not normally required. May be abrasive and mildy irritating.  Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals.  No data available					
SECTION 5 - FIRE-FIGHTING MEASURES						
SUITABLE EXTINGUISHING MEDIA	Dry chemical type preferred. Carbo	on dioxide, foam, water spray, sand, or earth	n is also recommended.			
SPECIFIC PRECAUTIONS AND INSTRUCTIONS FOR FIRE FIGHTERS	Use washdown and spread out method. For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. If the potential hazard is unknown or in enclosed or confined areas, self-contained breathing apparatus should be worn. Cool equipment exposed to fire with water, if it can be done with minimal risk.					
SPECIFIC HAZARDS (Unusual Fire & Explosion Hazards)  This material may burn, but will not ignite readily. When water is used to extinguish a fire in a confined storage space there is the possibility of a steam explosion. Whenever possible, the burning coke in a confined storage space should be removed and the material drenched in an open area to extinguish fire. Under certain conditions, the dust my be a potential explosion hazard.						
SPECIFIC HAZARDS	Typical Decomposition Products: carbon oxides (CO/CO <sub>2</sub> ), sulfur oxides and metal oxides.					

# Safety Data Sheet Calcined Petroleum Coke Backfills

Page 2 of 4

Issued 7/08/2015

SECTION 6 - ACCIDENTAL RELEASE MEASURES					
PERSONAL PRECAUTIONS:	Petroleum coke is combustible. Avoid heat and flames. Wash thoroughly after clean up.	EMERGENCY PROCEDURES:	Minimize formation of dust.		
PROTECTIVE EQUIPMENT:	Wear eye protection and gloves. If excessive dust, use a NIOSH approved respirator.	METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:	Contain and remove by mechanical means (scoop, sweep or vacuum). Prevent spilled material from entering sewers, storm drains, or other unauthorized treatment drainage systems and natural waterways.		
SEC	TION 7 - HANDLI	NG AND STORAGE			
PRECAUTIONS FOR SAFE HANDLING:	No special requirements. Wash thoroughly after handling. Practice good personal hygiene.	CONDITIONS FOR SAFE STORAGE (including any incompatibles)	No special requirements; however, material should be stored to minimize dust formation. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits.		
SECTION 8 - EX	POSURE CONTR	OLS/PERSONAL PR	OTECTION		
ACGIH*	TLV (8-HR TWA)**	3 mg/M3 as Respirable Fraction	10 mg/M3 Total Dust		
OSHA***1910.1000	PEL**** (8-HR TWA)**	5 mg/M3 as Respirable Fraction	15 mg/M3 Nuisance Dust		
State, local or other agencies may have established mo	· ·	· ·			
* ACGIH = American Conference of Governmental Indu	, ,	*** OSHA = Occupational Safety and			
** TLV-TWA = Threshold Limit Value-Time Weighted A	verage	**** PEL = Permissible Exposure Lim	it		
ENGINEERING CONTROLS	Mechanically ventilate the work env	ironment to reduce dust concentration and t	o maintain normal atmospheric oxygen levels.		
EYE PROTECTION	Approved eye protection, such as s	afety glasses or goggles, to safeguard agai	inst potential eye contact is recommended.		
RESPIRATORY PROTECTION	Appropriate respirator depends upon the type and magnitude of exposure. A NIOSH/MSHA approved dust respirator (i.e., type 95 [N or P] particulate filter( may be used under conditions where airborne concentrations are expected to exceed exposure limits for dust. Use a positive pressure air respirator, if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.				
SKIN PROTECTION	Not required. However, it is consider	ered good practice to wear gloves when har	ndling.		
OTHER PROTECTIVE CLOTHING OR EQUIPMENT	Recommend using good personal h	nygiene practices and a clean source of water	er for flushing eyes and skin.		
SECTION 9	- PHYSICAL AND	CHEMICAL PROPE	RTIES		
APPEARANCE	Irregular, steel gray to black, granular solid.	ODOR	May have slight petroleum odor.		
ODOR THRESHOLD	Not determined.	рН	Not applicable.		
MELTING POINT/FREEZING POINT	Not applicable.	INITIAL BOILING POINT AND BOILING RANGE	Not applicable.		
FLASH POINT	Not determined.	EVAPORATION RATE	Not applicable.		
L		UPPER/LOWER FLAMMABILITY	Upper NA%		
FLAMMABILITY	Not determined.	OR EXPLOSIVE LIMITS	Lower NA%		
VAPOR PRESSURE	Not applicable.	RELATIVE DENSITY (water=1)	0.72 - 1.28		
SOLUBILITY (in water)	Insoluble	PARTITION COEFFICIENT:	Not applicable.		

## Safety Data Sheet Calcined Petroleum Coke Backfills

Page 3 of 4

Issued 7/08/2015

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (continued)				
AUTO-IGNITION TEMPERATURE	670 C (1,238 F)	DECOMPOSITION TEMPERATURE	Not determined.	
VISCOSITY	Not applicable.			
SECT	ION 10 - STABILI	TY AND REACTIVITY		
REACTIVITY	Finely ground petroleum coke dust may become flammable or explosive.	CHEMICAL STABILITY	Stable	
POSSIBLITY OF HAZARDOUS REACTIONS	None known	CONDITIONS TO AVOID	Avoid accumulations of finely ground dust.	
INCOMPATIBLE MATERIALS	Incompatible with strong oxidizing agents, perchlorates, peroxides, nitric acid, especially when healed.	HAZARDOUS DECOMPOSITION PRODUCTS	In the event of a fire, products of combustion may include carbon monoxide, carbon dioxide, sulfur dioxide, variou hydrocarbons and smoke. There are no hazardous decomposition products during recommended handling and storage.	
SECTIO	N 11 - TOXICOLO	OGICAL INFORMATION	ON	
HEALTH H	AZARDS Avoid contact with e	yes. Wash thoroughly after handlin	g.	
POTENTIAL HEALTH EFFECTS		ACUTE	CHRONIC	
EYE CONTACT	· ·	ossible abrasive mechanical irritation, dust dness. Flush eyes with plenty of water.	No data available.	
INHALATION (Breathing)		ossible mechanical irritation. Possible ggravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumontis (lung inflammation), coughing, and shortness of breath.	
INGESTION (Swallowing)	No significant health hazards expected. If large quantities are ingested, or discomfort occurs, seek medical attention.  No data available.  First aid is not normally required. May be abrasive and mildly irritating.  Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals.		No data available.	
SKIN			No data available.	
CARCINOGENICITY (NTP)	The National Toxicology Program (I	NTP) has not identified calcined petroleum of	coke as known or anticipated carcinogen.	
CARCINOGENICITY (IAC)	The International Agency for Resea confirmed human carcinogen.	rch on Cancer (IARC) has not identified cale	cined petroleum coke as a probable, possible or	
CARCINOGENICITY (OSHA)	The Occupational Safety and Health carcinogen.	h Administration (OSHA) has not identified o	calcined petroleum coke as a carcinogen or potential	
SECT	ION 12 - ECOLOG	SICAL INFORMATION	N	
ECOTOXICITY	Calcined petroleum coke has a low	potential to cause adverse effects on the ad	quatic and terrestial environments.	
PERSISTENCE AND DEGRADABILITY	Calcined petroleum coke does not r	readily degrade.		
BIOACCUMULATIVE POTENTIAL	Calcined petroelum coke has a low	bioaccumulative potential.		
MOBILITY IN SOIL	Calcined petroleum coke is non-rea	active and mobility in soil is low.		
OTHER ADVERSE EFFECTS	None known			

## Safety Data Sheet Calcined Petroleum Coke Backfills

Page 4 of 4 Issued 1/20/2015

	SECTION 13 - DISPOSAL CONSIDERATIONS					
	DISPOSAL	This material, if discarded in the same form as the product, is not a RCRA "listed" or "characteristic" hazardous waste. The material may be processed by an approved recycler, or disposed of at an approved waste disposal facility. Method of disposal selected is subject to compliance with applicable federal, state and local laws and regulations and product characteristics at the time of disposal.				
	SECTION 14	- TRANSPORT DI	SPOSAL CONSIDER	ATIONS		
	UN NUMBER	Not applicable. Not regulated by DOT/ICAP/IATA	UN PROPER SHIPPING NAME	Not applicable. Not regulated by DOT/ICAP/IATA		
	TRANSPORT HAZARD CLASS	Not applicable. Not regulated by DOT/ICAP/IATA	PACKING GROUP	Not applicable. Not regulated by DOT/ICAP/IATA		
	ENVIRONMENTAL HAZARDS	Calcined petroleum coke is not a m	arine pollutant.			
	TRANSPORTATION IN BULK	Hot calcined petroleum coke is regu	ulated when loading cargo vessels, if the co	ke temperature exceeds 130F. (See 46 CFR 148.10).		
	SPECIAL PRECAUTIONS	See the comment above for Transp	portation in Bulk.			
	SECTI	ON 15 - REGULA	TORY INFORMATIO	N		
	SARA 311/312	Acute: Yes I No	Fire: Yes Vo	Reactive: Yes ✓ No		
	SARA 31 1/312	Chronic: Yes I No	Pressure: Yes I No			
	SARA 313	This material contains no chemicals, above the de miminis levels, subject to the reporting requirements of SARA 313 and 40		e reporting requirements of SARA 313 and 40 CFR 372		
	EPA (CERCLA) REPORTABLE QUANTITY  US TSCA Chemical Inventory Section 8(b)					
			This product is listed on the TSCA Inventory			
	Country or Region On inventory (yes/no)					
	Canada (DSL)		Yes			
	Europe (EINECS)		Yes			
	Australia (AICS)		Yes			
	China (IECSC)		Yes			
	Japan (ENCS)		No			
	Korea (ECL)		Yes			
	Philipines (PICCS)		Yes			
	New Zealand		No			
	<b>REACH Registration:</b> Calcined petroleum coke is exerchemicals (REACH) per Annex V, Exemptions from the	e Obligation to Register in Accor	dance with Article 2(7)(b), Exemption	10.		
	IMSBC Section 4.2 Declaration  Calcined petroleum coke is not "Harmful to the Marine Environment".					
			NTARY INFORMATIO	ON .		
-	UE DATE	July 8, 2015				
-	REVIOUS ISSUE DATE  January 20, 2015					
	DENTIFICATION Calcined Petroleum  REVISION No. 3					
\v=\	IOIOIT ITU.			ATION IS PROVIDED WITHOUT ANY		

The information in this MSDS was obtained from sources believed reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY, COMPLETENESS OR CORRECTNESS OF THE INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. Although certain hazards are described, we can not guarantee that these are the only hazards that exist.

The conditions or methods of handling, storage, use and disposal of the product are beyond the supplier's control and may be beyond the supplier's knowledge. For this and other reasons, the supplier does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in connection with the handling, storage, use or disposal of the product.

### Safety Data Sheet

# Calcined Petroleum Coke Compound Issued 07/8/2015

Page 1 of 4

SECTION 1	- PRODUCT AND (	COMPANY IDENTIFIC	CATION	
PRODUCT/CHEMICAL NAME:	Calcined Petroleum Coke Compound	Emergency Phone No.	(601) 544-7490	
IDENTIFICATION:	LORESCO® type EnviroCoke IV,	<b>HMIS/NEPA</b> HAZARD RATING	Health Fire	
CHEMICAL FAMILY:	Carbon Grout	4 = Extreme 3 = Serious	0	
COMPANY:	LORESCO, Inc. 421 J. M. Tatum Ind. Park Dr Hattiesburg MS 39401.	2 = Moderate 1 = Minimal	Other Reactivity	
SE	SECTION 2 - HAZARD IDENTIFICATION			
HAZARD CLASSIFICATION:	Mechanical abrasion	SYMBOL:	None	
SIGNAL WORD:	Warning	PRECAUTIONARY STATEMENT:	Wear safety glasses or goggles. Gloves are recommended. If there is excessive dust, a NIOSH approved respirator is recommended. Wash skin and hair thoroughly after handling.	
HAZARD STATEMENT:	Repeated or prolonged contact may cause irritation of eyes, skin or respiratory system.	OTHER HAZARDS:	None Identified	
SECTION 3 - C	OMPOSITION/ INF	ORMATION ON ING	REDIENTS	
COMPOSITION/ CAS No.	CAS#	Weig	ht % (dry basis)	
Calcined Petroleum Coke/ 64743-05-1	64743-05-01		50-100%	
Portland Cement	65997-15-1		0-50%	

SECTION 4- FIRST AID MEASURES						
	HEALTH HAZARDS Avoid contact with eyes. Wash thoroughly after handling. PHYSICAL HAZARDS Keep away from all sources of ignition.					
	POTENTIAL HEALTH EFFECTS	ACUTE	CHRONIC			
	EYE CONTACT	No significant irritation expected. Possible abrasive mechanical irritation, dust may cause stinging, watering, or redness. Flush eyes with plenty of water.	No Data Available			
Health	INHALATION (Breathing)	No significant irritation expected. Possible mechanical irritation. Possible irritation of respiratory tract. May aggravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumontis (lung inflammation), coughing, and shortness of breath.			
<sup>±</sup>	INGESTION (Swallowing)	No significant health hazards expected. If large quantities are ingested, or discomfort occurs, seek medical attention.	No Data Available			
	SKIN	First aid is not normally required. May be abrasive and mildy irritating. Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals. Wash down with generous amounts of water.	No Data Available			

# Safety Data Sheet Calcined Petroleum Coke Compound Issued 07/8/2015

Page 2 of 4 Issued 07/8/201

SECTION 5 - FIRE-FIGHTING MEASURES				
SUITABLE EXTINGUISHING MEDIA  Dry chemical type preferred. Carbon dioxide, foam, water spray, sand, or earth is also recommended.				
SPECIFIC PRECAUTIONS AND INSTRUCTIONS FOR FIRE FIGHTERS  Use washdown and spread out method. For fires beyond the incipient stage, emergency responders in the immediate haza should wear bunker gear. If the potential hazard is unknown or in enclosed or confined areas, self-contained breathing apparation. Cool equipment exposed to fire with water, if it can be done with minimal risk.				
SPECIFIC HAZARDS (Unusual Fire & Explosion Hazards)	This material may burn, but will not ignite readily. When water is used to extinguish a fire in a confined storage space there is the possibility of a steam explosion. Whenever possible, the burning coke in a confined storage space should be removed and the material drenched in an open area to extinguish fire. Under certain conditions, the dust my be a potential explosion hazard.			
SPECIFIC HAZARDS	Typical Decomposition Products: carbon oxides (CO/CO₂), sulfur oxides and metal oxides.			

	SECTION 6 - ACCIDENTAL RELEASE MEASURES					
	PERSONAL PRECAUTIONS:	Petroleum coke is combustible. Avoid heat and flames. Wash thoroughly after clean up.	EMERGENCY PROCEDURES:	Minimize formation of dust.		
	PROTECTIVE EQUIPMENT:	vious cyc protoction and gloves. If	CONTAINMENT AND CLEANING	Contain and remove by mechanical means (scoop, sweep or vacuum). Prevent spilled material from entering sewers, storm drains, or other unauthorized treatment drainage systems and natural waterways.		

SECTION 7 - HANDLING AND STORAGE		
I FYE PROTECTION	Approved eye protection, such as safety glasses or goggles, to safeguard against potential eye contact is recommended.	
	Appropriate respirator depends upon the type and magnitude of exposure. A NIOSH/MSHA approved dust respirator (i.e., type 95 [N or P] particulate filter) may be used under conditions where airborne concentrations are expected to exceed exposure limits for dust (see Section IX). Use a positive pressure air respirator, if there is potential for	
I VENTILATION	Mechanically ventilate the work environment to reduce dust concentration and to maintain normal atmospheric oxygen levels.	
SKIN PROTECTION	Not required. However, it is considered good practice to wear gloves and long sleeves when handling.	
OTHER PROTECTIVE CLOTHING OR EQUIPMENT	Recommend using good personal hygiene practices and a clean source of water for flushing eyes and skin.	

	SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION				
			EXPOSURE GUIDELINES <sup>1</sup>		
	COMPOSITION/ CAS No.	CAS#	ACGIH*	OSHA*** 1910.1000	
			TLV (8-hr TWA)**	PEL**** (8-hr TWA)**	
	Calcined Petroleum Coke/ 64743-05-1	64743-05-01	10 mg/M3 Total Dust 3 mg/ M3 as Respirable Fraction	15 mg/M3 Nuiance Dust 5 mg/M3 as Respirable Fraction	
	Carbon Black	1333-86-4	3.5 mg/ M3	3.5 mg/ M3	
	Portland Cement	65997-15-1	30 MPPCF		
State, local or other agencies may have established more stringent limits. Consult local agencies for further information.      **** OSHA = Occupational Safety and Health Administration      **** TLV-T WA = Threshold Limit Value-Time Weighted Average  **** PEL = Permissible Exposure Limit					
	ENGINEERING CONTROLS	Mechanically ventilate the work environment to reduce dust concentration and to maintain normal atmospheric oxygen levels.  Approved eye protection, such as safety glasses or goggles, to safeguard against potential eye contact is recommended.  Appropriate respirator depends upon the type and magnitude of exposure. A NIOSH/MSHA approved dust respirator (i.e., type 95 [N or P] particulate filter( may be used under conditions where airborne concentrations are expected to exceed exposure limits for dust. Use a positive pressure air respirator, if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.			
	EYE PROTECTION				
	REPIRATORY PROTECTION				

### **Material Safety Data Sheet**

### Calcined Petroleum Coke Compound

Page 3 of 4 Safety Data Sheet

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)					
SKIN PROTECTION	Not required. However, it is conside	Not required. However, it is considered good practice to wear gloves when handling.			
OTHER PROTECTIVE CLOTHING OR EQUIPMENT	Recommend using good personal hygiene practices and a clean source of water for flushing eyes and skin.				
SECTION	ON 9 - PHYSICAL AN	ID CHEMICAL PROPER	TIES		
APPEARANCE	Irregular, steel gray to black, granular, solid	ODOR	May have slight petroleum odor.		
ODOR THRESHOLD	Not determined.	рН	Not applicable.		
MELTING POINT/FREEZING POINT	Not applicable.	INITIAL BOILING POINT AND BOILING RANGE	Not applicable.		
FLASH POINT	Not determined.	EVAPORATION RATE	Not applicable.		
FLAMMABILITY	Not determined.	UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	Upper NA%		
VADOD DDESSUDE	Net continued	DELATIVE DENCITY (water 4)	Lower NA%		
VAPOR PRESSURE	Not applicable.	RELATIVE DENSITY (water=1)	0.72 - 1.28		
SOLUBILITY (in water)	Insoluble	PARTITION COEFFICIENT:	Not applicable.		
		n-octanol/water			
AUTO-IGNITION TEMPERATURE	670 C (1,238 F)	DECOMPOSITION TEMPERATURE	Not determined.		
VISCOSITY	Not applicable.				
SECT	ION 10 - STABILI	TY AND REACTIVITY	(		
REACTIVITY	Finely ground petroleum coke dust may become flammable or explosive.	CHEMICAL STABILITY	Stable		
POSSIBLITY OF HAZARDOUS REACTIONS	None known	CONDITIONS TO AVOID	Avoid accumulations of finely ground dust.		
INCOMPATIBLE MATERIALS	Incompatible with strong oxidizing agents, perchlorates, peroxides, nitric acid, especially when heated.	HAZARDOUS DECOMPOSITION PRODUCTS	In the event of a fire, products of combustion may include carbon monoxide, carbon dioxide, sulfur dioxide variou hydrocarbons and smoke. There are no hazardous decomposition products during recommended handling and storage.		
		OGICAL INFORMATION			
POTENTIAL HEALTH EFFECTS		ACUTE	CHRONIC		
EYE CONTACT	ů i	ossible abrasive mechanical irritation, dust dness. Flush eyes with plenty of water.	No data available.		
INHALATION (Breathing)		ossible mechanical irritation. Possible ggravate pre-existing respiratory conditions.	Repeated overexposure to any dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumontis (lung inflammation).		
INGESTION (Swallowing)	No significant health hazards expected. If large quantities are ingested, or discomfort occurs, seek medical attention.  No data available.				
SKIN	First aid is not normally required. May be abrasive and mildly irritating.  Prolonged or repeated contact may cause skin irritation or dermatitis to  Susceptible individuals.				
CARCINOGENICITY (NTP)		NTP) has not identified calcined petroleum of	coke as known or anticipated carcinogen.		
CARCINOGENICITY (IAC)	The International Agency for Resea confirmed human carcinogen.	rch on Cancer (IARC) has not identified cale	cined petroleum coke as a probable, possible or		
CARCINOGENICITY (OSHA)  The Occupational Safety and Health Administration (OSHA) has not identified calcined petroleum coke as a carcinogen or potential carcinogen.					

#### **Safety Data Sheet**

### Calcined Petroleum Coke Compound

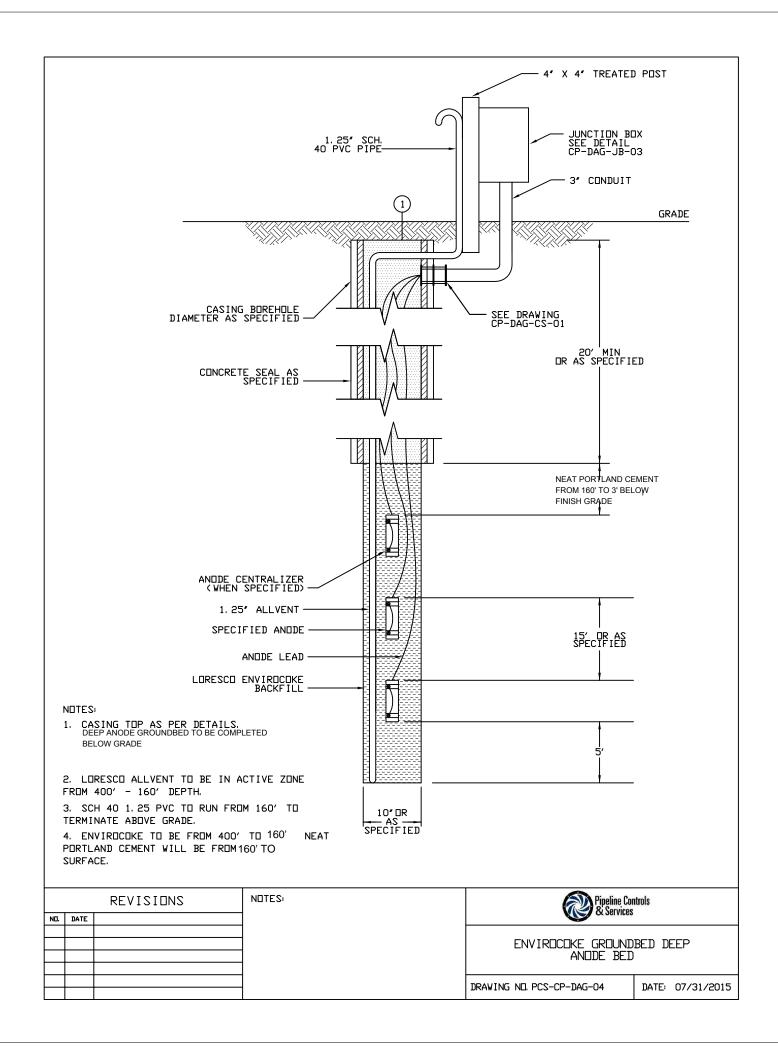
Page 4 of 4

Issued 07/8/2015

	SECTION 12 - ECOLOGICAL INFORMATION					
	ECOTOXICITY		potential to cause adverse effects on the ac	quatic and terrestial environments.		
	PERSISTENCE AND DEGRADABILITY BIOACCUMULATIVE POTENTIAL	Calcined petroleum coke does not r Calcined petroelum coke has a low	, ,			
	MOBILITY IN SOIL	Calcined petroleum coke is non-rea	· · · · · · · · · · · · · · · · · · ·			
	OTHER ADVERSE EFFECTS	None known				
	SECTI	ON 13 - DISPOSA	AL CONSIDERATION	S		
	DISPOSAL	This material, if discarded in the same form as the product, is not a RCRA "listed" or "characteristic" hazardous waste. The material may be processed by an approved recycler, or disposed of at an approved waste disposal facility. Method of disposal selected is subject to compliance with applicable federal, state and local laws and regulations and product characteristics at the time of disposal.				
	SECTION 14	- TRANSPORT DI	SPOSAL CONSIDER	ATIONS		
	UN NUMBER	Not applicable. Not regulated by DOT/ICAP/IATA	UN PROPER SHIPPING NAME	Not applicable. Not regulated by DOT/ICAP/IATA		
	TRANSPORT HAZARD CLASS	Not applicable. Not regulated by DOT/ICAP/IATA	PACKING GROUP	Not applicable. Not regulated by DOT/ICAP/IATA		
	ENVIRONMENTAL HAZARDS	Calcined petroleum coke is not a m	·			
	TRANSPORTATION IN BULK			ke temperature exceeds 130F. (See 46 CFR 148.10).		
	SPECIAL PRECAUTIONS	See the comment above for Transp		V.		
	SECII	ON 15 - REGULA	TORY INFORMATIO	N		
	SARA 311/312	Acute: Yes Vo	Fire: Yes ✓ No	Reactive: Yes I No		
		Chronic: Yes 🗸 No	Pressure: Yes I No			
	SARA 313	This material contains no chemicals	s, above the de miminis levels, subject to the	e reporting requirements of SARA 313 and 40 CFR 372		
	EPA (CERCLA) REPORTABLE QUANTITY	No	This are dust is listed on the TCCA las			
	US TSCA Chemical Inventory Section 8(b)		This product is listed on the TSCA Inv	ventory		
	Country or Region		On inventory (yes/no)			
	Canada (DSL)		Yes			
	Europe (EINECS)		Yes			
	Australia (AICS) China (IECSC)		Yes Yes			
	Japan (ENCS)		No			
	Korea (ECL)		Yes			
	Philipines (PICCS)		Yes			
	New Zealand		No			
	REACH Registration: Calcined petroleum coke is exempt from the registration requirements of the European chemical policy Registration, Evaluation, and Authorization of Chemicals (REACH) per Annex V, Exemptions from the Obligation to Register in Accordance with Article 2(7)(b), Exemption 10.					
	IMSBC Section 4.2 Declaration  Calcined petroleum coke is not "Harmful to the Marine Environment".					
			NTARY INFORMATIO	N		
	JE DATE	July 8, 2015				
	VIOUS ISSUE DATE	January 2, 2014				
	DENTIFICATION Calcined Petroleum  EVISION No. 2					
KEV	IJION NO.					
The	information in this MSDS was obtained from	n courses believed reliab	IN LION/EVED THE INCODMA	ATION IS DOONIDED WITHOUT AND		

The information in this MSDS was obtained from sources believed reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY, COMPLETENESS OR CORRECTNESS OF THE INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. Although certain hazards are described, we can not guarantee that these are the only hazards that exist.

The conditions or methods of handling, storage, use and disposal of the product are beyond the supplier's control and may be beyond the supplier's knowledge. For this and other reasons, the supplier does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in connection with the handling, storage, use or disposal of the product.



Conservation Division 266 N. Main St., Ste. 220 Wichita, KS 67202-1513



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Shari Feist Albrecht, Chair Jay Scott Emler, Commissioner Pat Apple, Commissioner

According to the drilling pit application, no earthen pits will be used at this location. Steel pits will be used. Please inform the Commission in writing as to which disposal well you utilized to dispose of the contents in the steel pits and the amount of fluid that was disposed. Please file form CDP-5, Exploration and Production Waste Transfer, within 30 days of fluid removal.

Should a haul-off pit be necessary please file form CDP-1, Application for Surface Pit, This location will have to be inspected prior to approval of the haul-off pit application.

A copy of this letter should be posted in the doghouse along with the approved Intent to Drill.