

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 All blanks must be Filled

CATHODIC PROTECTION BOREHOLE INTENT

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

	Surface Owner Notification Act, MUST be submitted with this form.
Expected Spud Date:	Spot Description:
, ,	Sec Twp S. R E W
OPERATOR: License#	feet from N / S Line of Section
Name:	feet from E / W Line of Section
Address 1:	Is SECTION: Regular Irregular?
Address 2:	(Check directions from nearest outside corner boundries)
City: +	County
Contact Person:	County.
Phone:	Facility Name:
	Borehole Number:
CONTRACTOR: License#	Ground Surface Elevation: MSI
Name:	Cathodic Borehole Total Depth:fee
Type Drilling Equipment:	Depth to Bedrock: fee
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 Depthfeet	(Cathodic surface csg. O.D. in inches / MWT in inches = SDR)
Anada installation depths are:	Annular space between borehole and casing will be grouted with:
Anode installation depths are:;;;;;	☐ 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:
AFFIDAVIT	Depth of TOP of Backfill installation material:
	Borehole will be Pre-Plugged? Yes No
The undersigned hereby affirms that the drilling, completion and eventual plugging if this well will comply with K.S.A. 55-101 et. seq.	9
is agreed that the following minimum requirements will be met:	
Notify the appropriate District office prior to spudding and again before plugging the	
and placement is necessary prior to plugging. In all cases, notify District Office prior	or to any grouting.
Notify appropriate District Office 48 hours prior to workover or re-entry.	
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	
 File all required forms: a. File Drill Pit Application (form CDP-1) with Intent to Drill (form KSONA-1) with Cathodic Protection Borehole Intent (CB-1) c. File Completic 	(form CB-1). b. File Certification of Compliance with Kansas Surface Owner Notification Act
d. Submit plugging report (CP-4) within 30 days after final plugging is completed.	in Form (ACO-1) within 30 days from spud date.
Cubacitta d Electronically	
Submitted Electronically	
	7
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	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:	
-	

Side Two

1260724

_ feet from

For KCC Use ONLY	
API # 15	

Operator: ___

Facility Name: ___

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.

Location of Well: County: ___

	Sec Twp S. R L E
	Is Section: Regular or Irregular
	If Section is Irregular, locate well from nearest corner bou Section corner used: NE NW SE SW
	PLAT
	now footage to the nearest lease or unit boundary line. Show the predicted locations of lectrical lines, as required by the Kansas Surface Owner Notice Act (House Bill 2032).
	You may attach a separate plat if desired.
	LEGEND
	: : : :
	Tank Battery Location
	Pipeline Location Electric Line Location
	Lease Road Location
	········ · · · · · · · · · · · · · · ·
	EXAMPLE :
15	
	Υ <u>π</u>
	: : : : : : : : : : : : : : : : : : :
: : :	· · · · (*) · · · · · · · · · · · · · · · · · · ·
	SEWARD CO. 3390' FEL

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

260724

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 Workover Pit Haul-Off Pit (If WP Supply API No. or Year Drilled)	Pit is: Proposed Existing If Existing, date constructed: Pit capacity:		SecTwp R East WestFeet from North / South Line of SectionFeet from East / West Line of Section	
		(bbls)	County	
Is the pit located in a Sensitive Ground Water A	Area? 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 (fe	et)	Width (feet) N/A: Steel Pits	
Depth fro	om ground level to dee	epest point:	(feet) No Pit	
material, thickness and installation procedure.		liner integrity, ir	ncluding any special monitoring.	
Distance to nearest water well within one-mile of pit: Depth to shallo Source of inforr		west fresh water feet. mation:		
feet Depth of water well	feet	measured	well owner electric log KDWR	
Emergency, Settling and Burn Pits ONLY:		Drilling, Work	over and Haul-Off Pits ONLY:	
Producing Formation:		Type of material utilized in drilling/workover:		
Number of producing wells on lease: Num		Number of working pits to be utilized:		
Barrels of fluid produced daily: Abando		Abandonment	procedure:	
		Drill pits must b	rill pits must be closed within 365 days of spud date.	
Submitted Electronically				
	KCC	OFFICE USE O		
Date Received: Permit Num	ber:	Permi	Liner Steel Pit RFAC RFAS it Date: Lease Inspection: Yes No	



Kansas Corporation Commission Oil & Gas Conservation Division

1260724

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

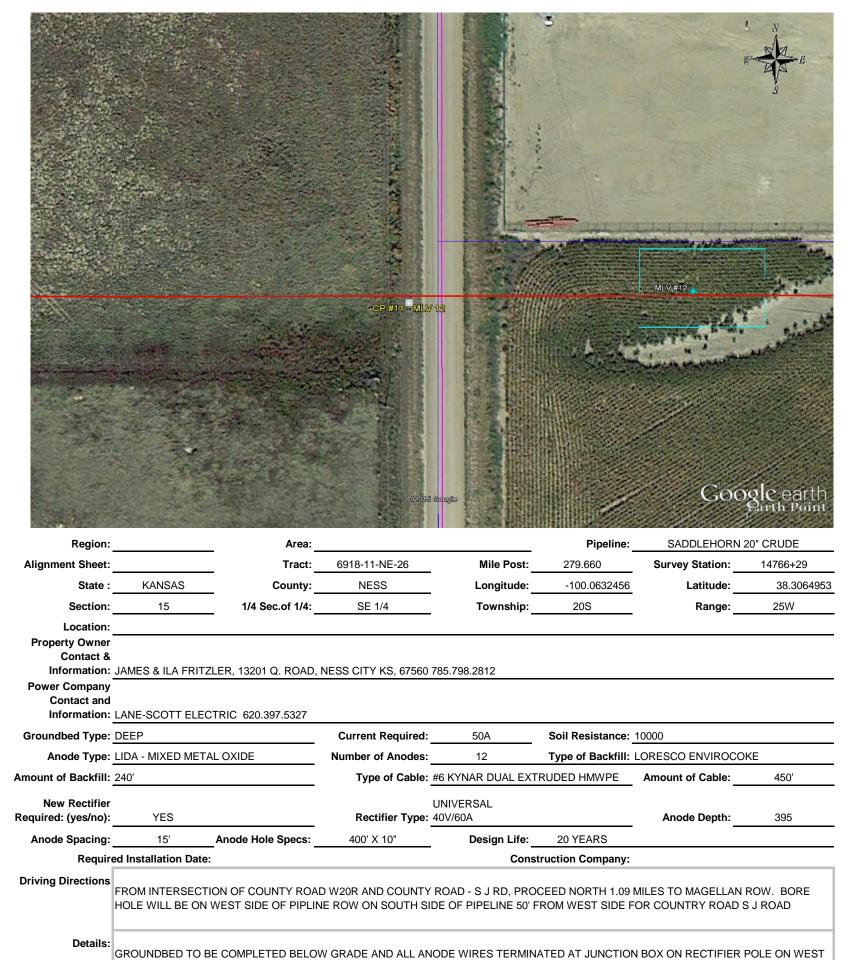
This form must be submitted with all Forms C-1 (Notice of Intent to Drill); CB-1 (Cathodic Protection Borehole Intent); T-1 (Request for Change of Operator Transfer of Injection or Surface Pit Permit); and CP-1 (Well Plugging Application).

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:	owner information can be found in the records of the register of deeds for the		
Address 2:			
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



08/06/15

Cost Center

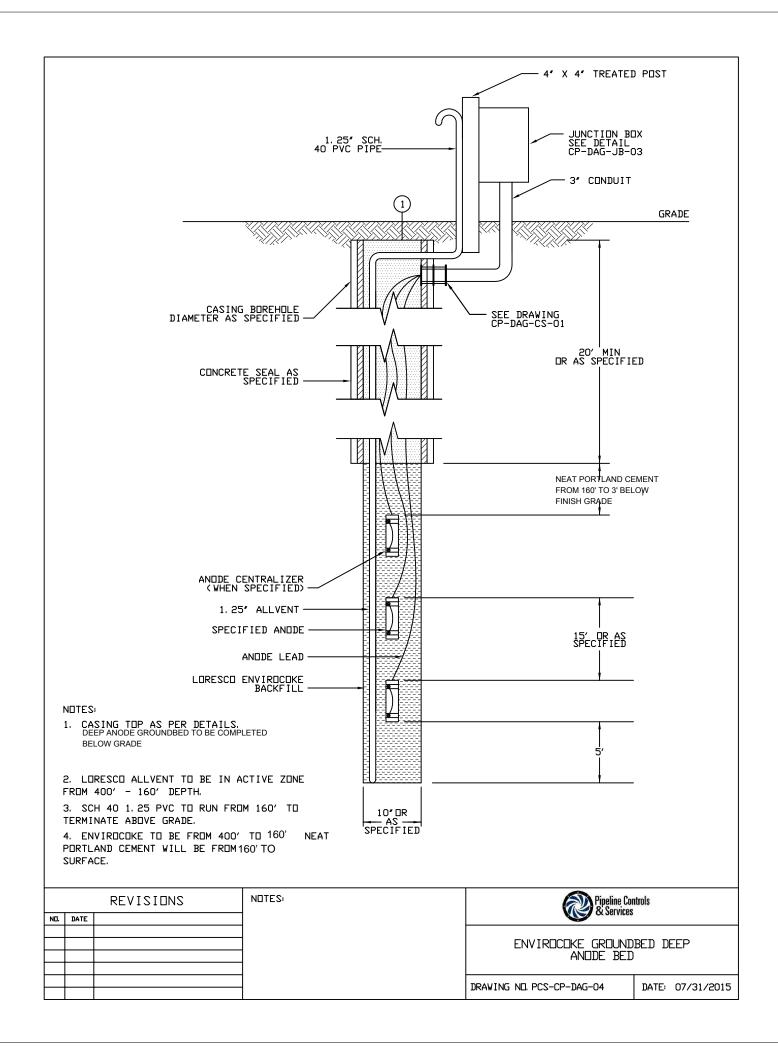
Date

Operating Unit

Company No.

Requested By: _TVANGOOR

SIDE OF THE ROAD.





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[™] and PermaPlug[™] 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% Bentonit		
48.9% Fixed Carbon	2% Wetting Agents	
0.1% Ash	_	
0.0% Moisture	_	
0.0% Volatile Matter	_	

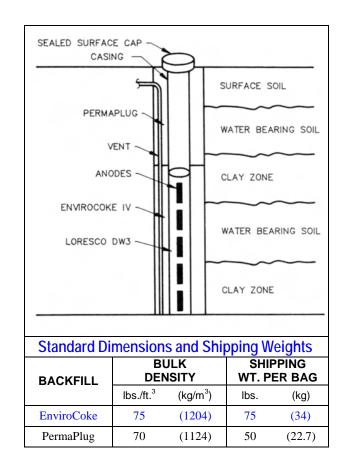
Loresco EnviroCoke IV[™] and PermaPlug[™] Specialty Backfills

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	ENVIROCOKE IV PERMAP			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

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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	ECTION 4 - FIRST	AID MEASURES	
HEALTH HA	ZARDS Avoid contact with	n eyes. Wash thoroughly after h	andling.
EXPOSURE ROUTE	Į.	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.		
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.		
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. 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 ₂), sulfur oxides and metal oxides.		

Safety Data Sheet Calcined Petroleum Coke Backfills

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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 safety glasses or goggles, to safeguard against 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.	

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (continued)					
AUTO-IGNITION TEMPERATURE	670 C (1,238 F)	DECOMPOSITION TEMPERATURE	Not determined.		
VISCOSITY	Not applicable.				
SECT	TON 10 - STABILI	TY AND REACTIVITY	1		
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.		
SECTION	N 11 - TOXICOLO	OGICAL INFORMATION	ON		
HEALTH H	AZARDS Avoid contact with e	yes. Wash thoroughly after handlin	ng.		
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 the properties of the properties o			
INHALATION (Breathing)					
INGESTION (Swallowing)		lo significant health hazards expected. If large quantities are ingested, or liscomfort occurs, seek medical attention.			
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. 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 aquatic and terrestial environments.				
PERSISTENCE AND DEGRADABILITY	Calcined petroleum coke does not readily degrade.				
BIOACCUMULATIVE POTENTIAL	Calcined petroelum coke has a low	bioaccumulative potential.			
MOBILITY IN SOIL	Calcined petroleum coke is non-rea	Calcined petroleum coke is non-reactive and mobility in soil is low.			
OTHER ADVERSE EFFECTS	None known				

Safety Data Sheet Calcined Petroleum Coke Backfills

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	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	s, above the de miminis levels, subject to th	e reporting requirements of SARA 313 and 40 CFR 372		
	EPA (CERCLA) REPORTABLE QUANTITY	No				
US TSCA Chemical Inventory Section 8(b)			This product is listed on the TSCA In	This product is listed on the TSCA Inventory		
	Country or Region On inventory (yes/no)					
Canada (DSL) Europe (EINECS) Yes Yes			Yes			
			Yes			
	Australia (AICS)		Yes			
	China (IECSC)		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".					
	SECTION 16- DOCUMENTARY INFORMATION					
-	UE DATE	July 8, 2015				
-	EVIOUS ISSUE DATE	January 20, 2015				
	Calcined Petroleum EVISION 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

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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,	HMIS/NEPA 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	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 - 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.			
	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			

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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 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/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 ¹		
	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. * ACGIH = American Conference of Governmental Industrial Hygienist *** 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				

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)						
SKIN PROTECTION	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			
SECTION 11 - TOXICOLOGICAL INFORMATION HEALTH HAZARDS Avoid contact with eyes. Wash thoroughly after handling.						
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. First aid is not normally required. May be abrasive and mildly irritating. Prolonged or repeated contact may cause skin irritation or dermatitis to No data available.					
SKIN						
CARCINOGENICITY (NTP)	susceptible individuals. The National Toxicology Program (NTP) has not identified calcined petroleum 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.						

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	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 readily degrade. Calcined petroelum coke has a low bioaccumulative potential.				
	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				
	REVIOUS ISSUE DATE January 2, 2014					
	DENTIFICATION Calcined Petroleum EVISION No. 2					
KEV	IJION NO.					
The	The information in this MSDS was obtained from sources believed reliable HOWEVER. THE INFORMATION IS PROVIDED WITHOUT ANY					

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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.