

**For KCC Use:**

Effective Date: _____

District # _____

SGA? ☐ Yes ☐ No**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION****1259581****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.***Form KSONA-1, Certification of Compliance with the Kansas Surface Owner Notification Act, MUST be submitted with this form.**Expected Spud Date: _____
month day year

OPERATOR: License# _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: _____

CONTRACTOR: License# _____

Name: _____

Type Drilling Equipment: ☐ Mud Rotary ☐ Cable☐ Air Rotary ☐ Other**Construction Features**

Length of Cathodic Surface (Non-Metallic) Casing

Planned to be set: _____ feet

Length of Conductor pipe (if any): _____ feet

Surface casing borehole size: _____ inches

Cathodic surface casing size: _____ inches

Cathodic surface casing centralizers set at depths of: _____ ; _____ ;

_____ ; _____ ; _____ ; _____ ; _____ ; _____ ; _____ ;

Cathodic surface casing will terminate at:

☐ Above surface ☐ Surface Vault ☐ Below Surface VaultPitless casing adaptor will be used: ☐ Yes ☐ No Depth _____ feet

Anode installation depths are: _____ ; _____ ; _____ ; _____ ; _____ ;

_____ ; _____ ; _____ ; _____ ; _____ ; _____ ; _____ ;

AFFIDAVIT

The undersigned hereby affirms that the drilling, completion and eventual plugging of this well will comply with K.S.A. 55-101 et. seq.

It is agreed that the following minimum requirements will be met:

1. Notify the appropriate District office prior to spudding and again before plugging the 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 to any grouting.
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.
4. 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.
5. File all required forms: a. File Drill Pit Application (form CDP-1) with Intent to Drill (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 Completion Form (ACO-1) within 30 days from spud date. d. Submit plugging report (CP-4) within 30 days after final plugging is completed.

Submitted Electronically**For KCC Use ONLY**

API # 15 - _____

Conductor pipe required _____ feet

Minimum Cathodic Surface Casing Required: _____ feet

Approved by: _____

This authorization expires: _____

(This authorization void if drilling not started within 12 months of approval date.)

Spud date: _____ Agent: _____

Spot Description: _____

_____ - _____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ ☐ E ☐ W
(a/a/a/a/a) _____ feet from ☐ N / ☐ S Line of Section_____ feet from ☐ E / ☐ W Line of SectionIs SECTION: ☐ Regular ☐ Irregular?

(Check directions from nearest outside corner boundaries)

County: _____

Facility Name: _____

Borehole Number: _____

Ground Surface Elevation: _____ MSL

Cathodic Borehole Total Depth: _____ feet

Depth to Bedrock: _____ feet

Water InformationAquifer Penetration: ☐ None ☐ Single ☐ Multiple

Depth to bottom of fresh water: _____

Depth to bottom of usable water: _____

Water well within one-quarter mile: ☐ Yes ☐ NoPublic water supply well within one mile: ☐ Yes ☐ No

Water Source for Drilling Operations:

☐ Well ☐ Farm Pond ☐ Stream ☐ Other

Water Well Location: _____

DWR Permit # _____

Standard Dimension Ratio (SDR) is = _____

(Cathodic surface csg. O.D. in inches / MWT in inches = SDR)

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: _____

Borehole will be Pre-Plugged? ☐ Yes ☐ No

If this permit has expired or will not be drilled, check a box below, sign, date and return to the address below.

☐ Permit Expired ☐ Well Not Drilled

Date

Signature of Operator or Agent



1259581

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: _____

Facility Name: _____

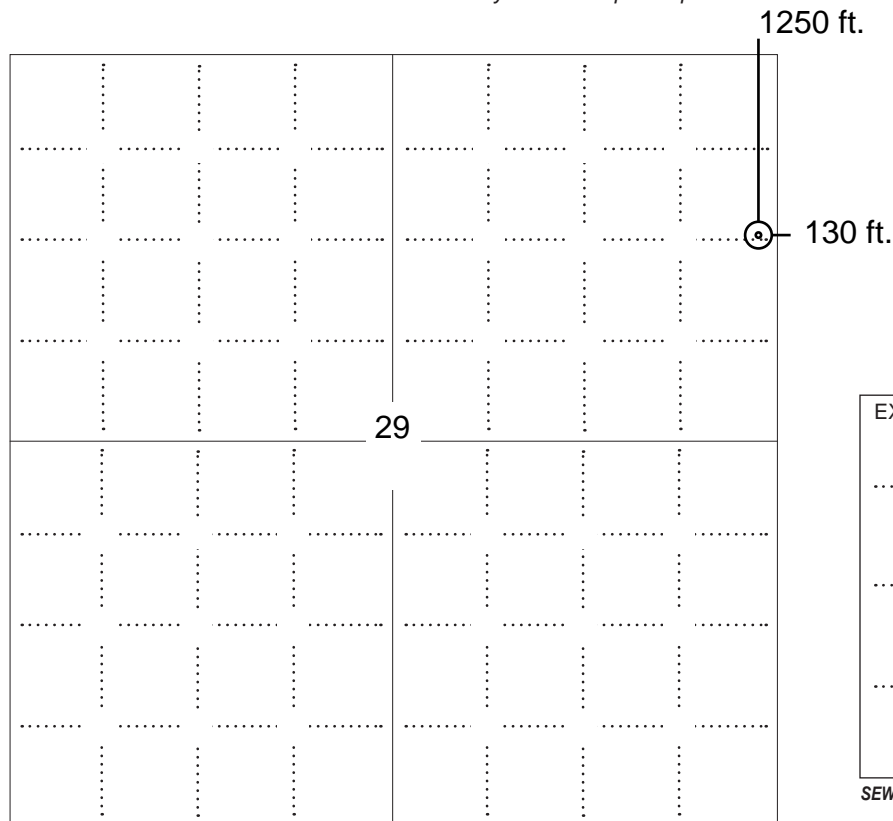
Borehole Number: _____

Location of Well: County: _____

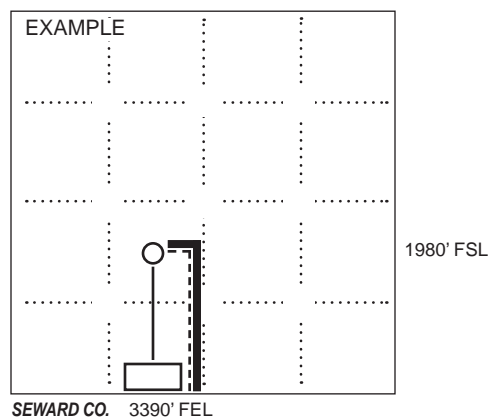
_____ feet from ☐ N / ☐ S Line of Section_____ feet from ☐ E / ☐ W Line of SectionSec. _____ Twp. _____ S. R. _____ ☐ E ☐ WIs Section: ☐ Regular or ☐ Irregular**If Section is Irregular, locate well from nearest corner boundary.**Section corner used: ☐ NE ☐ NW ☐ SE ☐ SW**PLAT**

Show location of the Cathodic Borehole. Show footage to the nearest lease or unit boundary line. Show the predicted locations of lease roads, tank batteries, pipelines and electrical lines, as required by the Kansas Surface Owner Notice Act (House Bill 2032).

You may attach a separate plat if desired.

**LEGEND**

- ☐ Well Location
- ☐ Tank Battery Location
- ☐ Pipeline Location
- ☐ Electric Line Location
- ☐ Lease Road Location



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

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

1259581

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): ____ - ____ - ____ - ____ Sec. ____ Twp. ____ R. ____ <input type="checkbox"/> East <input type="checkbox"/> West ____ Feet from <input type="checkbox"/> North / <input type="checkbox"/> South Line of Section ____ Feet from <input type="checkbox"/> East / <input type="checkbox"/> West Line of Section ____ County	
Type of Pit: <input type="checkbox"/> Emergency Pit <input type="checkbox"/> Burn Pit <input type="checkbox"/> Settling Pit <input type="checkbox"/> Drilling Pit <input type="checkbox"/> Workover Pit <input type="checkbox"/> Haul-Off Pit (If WP Supply API No. or Year Drilled)	Pit is: <input type="checkbox"/> Proposed <input type="checkbox"/> Existing If Existing, date constructed: _____ Pit capacity: _____ (bbls)		
Is the pit located in a Sensitive Ground Water Area? <input type="checkbox"/> Yes <input type="checkbox"/> No		Chloride concentration: _____ mg/l (For Emergency Pits and Settling Pits only)	
Is the bottom below ground level? <input type="checkbox"/> Yes <input type="checkbox"/> No	Artificial Liner? <input type="checkbox"/> Yes <input type="checkbox"/> No	How is the pit lined if a plastic liner is not used?	
Pit dimensions (all but working pits): _____ Length (feet) _____ Width (feet) <input type="checkbox"/> N/A: Steel Pits Depth from ground level to deepest point: _____ (feet) <input type="checkbox"/> No Pit			
If the pit is lined give a brief description of the liner material, thickness and installation procedure.		Describe procedures for periodic maintenance and determining liner integrity, including any special monitoring.	
Distance to nearest water well within one-mile of pit: _____ feet Depth of water well _____ feet		Depth to shallowest fresh water _____ feet. Source of information: <input type="checkbox"/> measured <input type="checkbox"/> well owner <input type="checkbox"/> electric log <input type="checkbox"/> KDWR	
Emergency, Settling and Burn Pits ONLY: Producing Formation: _____ Number of producing wells on lease: _____ Barrels of fluid produced daily: _____ Does the slope from the tank battery allow all spilled fluids to flow into the pit? <input type="checkbox"/> Yes <input type="checkbox"/> No		Drilling, Workover and Haul-Off Pits ONLY: Type of material utilized in drilling/workover: _____ Number of working pits to be utilized: _____ Abandonment procedure: _____ 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 Number: _____ Permit Date: _____ Lease Inspection: ☐ Yes ☐ No

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202



KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1259581

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) ☐ T-1 (Transfer) ☐ CP-1 (Plugging Application)

OPERATOR: License # _____
Name: _____
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ + _____
Contact Person: _____
Phone: (_____) _____ Fax: (_____) _____
Email Address: _____

Well Location:
____ - ____ - ____ Sec. ____ Twp. ____ S. R. ____ ☐ East ☐ West
County: _____
Lease Name: _____ Well #: _____
If filing a Form T-1 for multiple wells on a lease, enter the legal description of the lease below:

Surface Owner Information:

Name: _____
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ + _____

When filing a Form T-1 involving multiple surface owners, attach an additional 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 county, and in the real estate property tax records of the county treasurer.

If this form is being submitted with a Form C-1 (Intent) or CB-1 (Cathodic Protection Borehole Intent), you must supply the surface owners and the KCC with a plat showing the predicted locations of lease roads, tank batteries, pipelines, and electrical lines. The locations shown on the plat are preliminary non-binding estimates. The locations may be entered on the Form C-1 plat, Form CB-1 plat, or a separate plat may be submitted.

Select one of the following:

- ☐ I certify that, pursuant to the Kansas Surface Owner Notice Act (House Bill 2032), I have provided the following to the surface owner(s) of the land upon which the subject well is or will be located: 1) a copy of the Form C-1, Form CB-1, Form T-1, or Form CP-1 that I am filing in connection with this form; 2) if the form being filed is a Form C-1 or Form CB-1, the plat(s) required by this form; and 3) my operator name, address, phone number, fax, and email address.
- ☐ I have not provided this information to the surface owner(s). I acknowledge that, because I have not provided this information, the KCC will be required to send this information to the surface owner(s). To mitigate the additional cost of the KCC performing this task, I acknowledge that I must provide the name and address of the surface owner by filling out the top section of this form and that I am being charged a \$30.00 handling fee, payable to the KCC, which is enclosed with this form.

If choosing the second option, submit payment of the \$30.00 handling fee with this form. If the fee is not received with this form, the KSONA-1 form and the associated Form C-1, Form CB-1, Form T-1, or Form CP-1 will be returned.

I Submitted Electronically

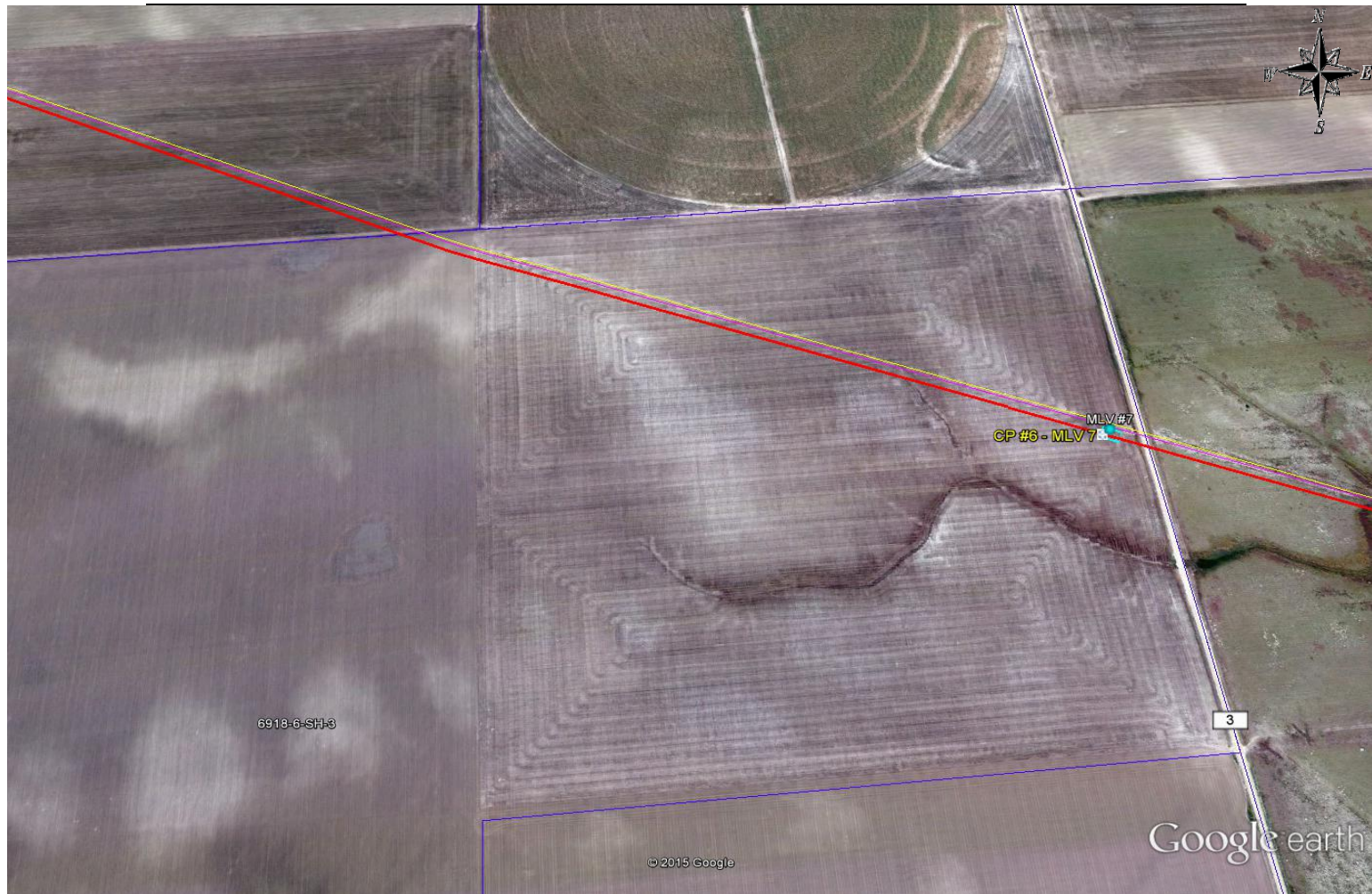
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MAGELLAN[®]

MIDSTREAM PARTNERS, L.P.

Cathodic Protection Installation Request



Region:	Area:	Pipeline:	SADDLEHORN 20" CRUDE
Alignment Sheet:	Tract: 6918-6-SH-3	Mile Post:	157.030
State : KANSAS	County: SHERMAN	Longitude:	-102.0254345
Section: 29	1/4 Sec.of 1/4: NE	Township:	10S
Range:	42W		
Location:			
Property Owner			
Contact &			
Information: JEFF AND ANITA HENDERSON, 5850 ROAD 8, GOODLAND KS 67735			
Power Company			
Contact and			
Information: MIDWEST ENERGY - 785.899.5252			
Groundbed Type: DEEP	Current Required: 50A	Soil Resistance:	10000
Anode Type: LIDA - MIXED METAL OXIDE	Number of Anodes: 12	Type of Backfill:	LORESCO ENVIROCOKE
Amount of Backfill: 220 FEET	Type of Cable: #6 KYNAR HMWPE	Amount of Cable:	450'
New Rectifier	Rectifier Type: UNIVERSAL 40/60	Anode Depth:	395'
Required: (yes/no): YES			
Anode Spacing: 15	Anode Hole Specs: 10" X 400'	Design Life:	20 YEARS
Required Installation Date:		Construction Company:	
Driving Directions			
Details:			
GROUND BED WILL BE INSTALLED IN MAGELLAN ROW OUTSIDE OF MLBV SITE. LEADS TO BE TERMINATED INSIDE MLBV FENCE WITH RECTIFIER. BOREHOLE WILL BE COMPLETED FROM ENVIROCOKE TO 3' BELOW SURFACE WITH NEAT PORTLAND CEMENT			
Requested By: TVANGOOR		Date: 08/06/15	
Company No.:		Operating Unit:	
		Cost Center:	

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 leachate 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

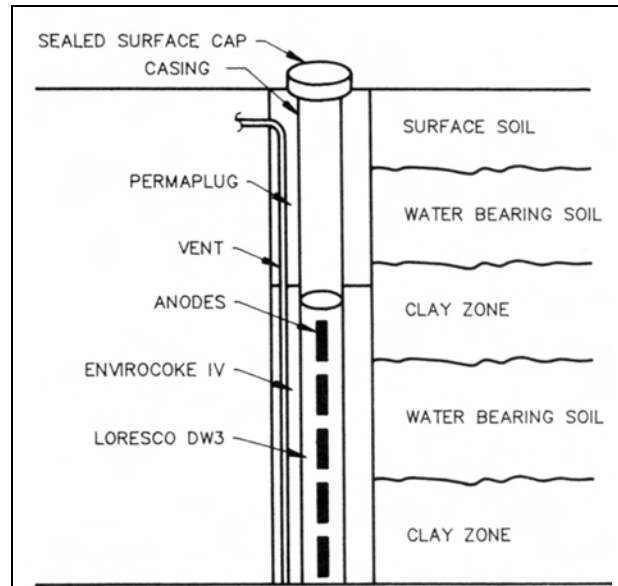
EnviroCoke IV	PermaPlug
49% Portland Cement	98% Bentonite
48.9% Fixed Carbon	2% Wetting Agents
0.1% Ash	—
0.0% Moisture	—
0.0% Volatile Matter	—

Loresco EnviroCoke IV™ 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	<i>EnviroCoke</i>
Hole Diameter	<i>6 in.</i>
Hole Depth	<i>10 ft.</i>
Number of Holes	<i>10</i>
Total Backfill Wt.	<i>1,430 lbs.</i>
Total Bags Req'd	<i>15</i>



Standard Dimensions and Shipping Weights

BACKFILL	BULK DENSITY		SHIPPING WT. PER BAG	
	lbs./ft. ³	(kg/m ³)	lbs.	(kg)
EnviroCoke	75	(1204)	75	(34)
PermaPlug	70	(1124)	50	(22.7)

Calculation Chart					
HOLE DIAMETER		BACKFILL REQUIRED			
		ENVIROCOKE IV		PERMAPLUG	
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)



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 [contact NSF International](#) 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 \(http://www.loresco.com\)](http://www.loresco.com)

Facility : Hattiesburg, MS

Miscellaneous Water Supply Products

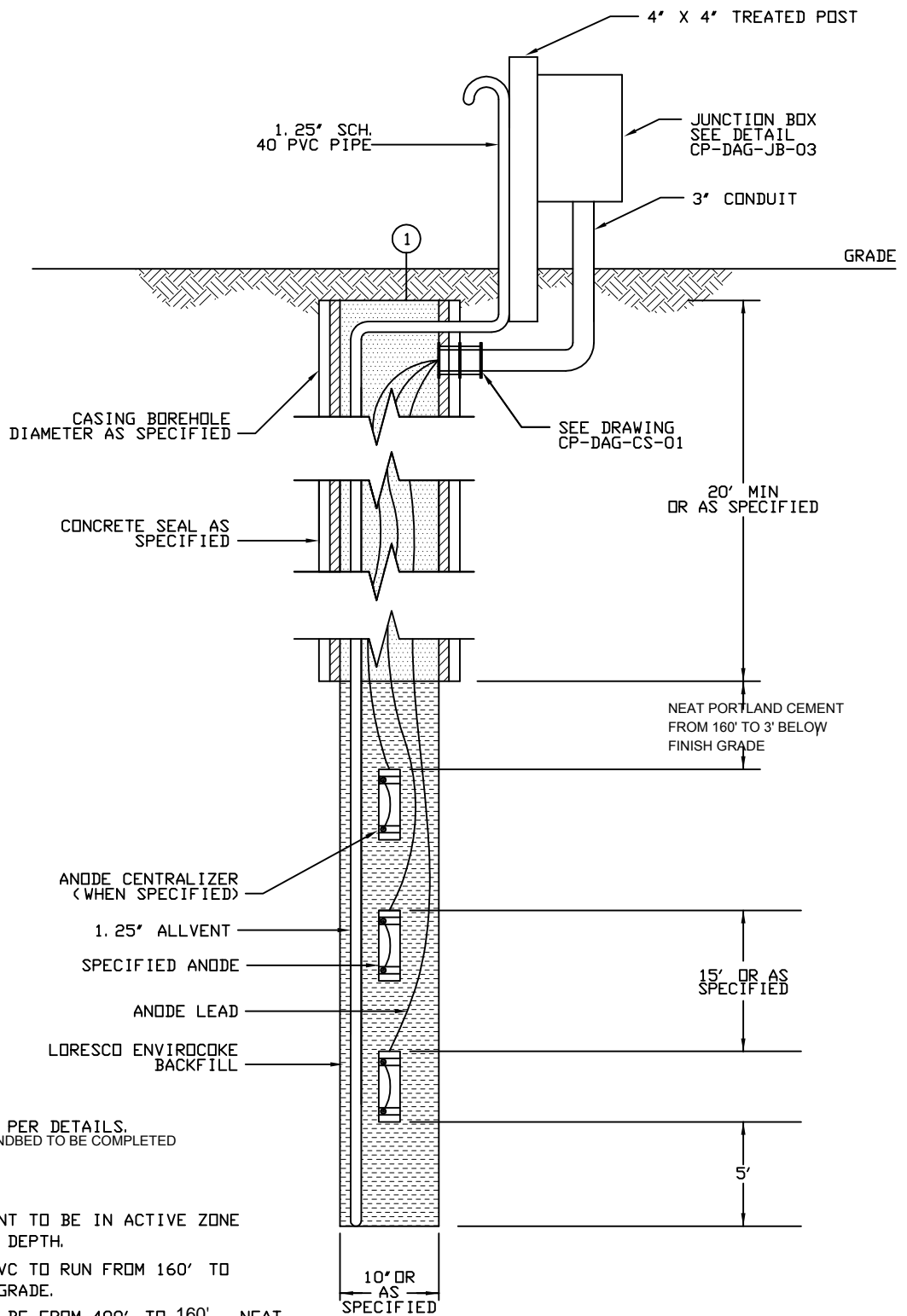
<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
LORESCO® PowerFill™	Other	[1]
LORESCO® Type RS.3®	Other	[1]
LORESCO® Type SC.3®	Other	[1]

[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 0 seconds



NOTES:

1. CASING TOP AS PER DETAILS. DEEP ANODE GROUND BED TO BE COMPLETED BELOW GRADE
2. LORESCO ALLVENT TO BE IN ACTIVE ZONE FROM 400' - 160' DEPTH.
3. SCH 40 1.25 PVC TO RUN FROM 160' TO TERMINATE ABOVE GRADE.
4. ENVIROCOKE TO BE FROM 400' TO 160' NEAT PORTLAND CEMENT WILL BE FROM 160' TO SURFACE.

REVISIONS			NOTES:	
NO.	DATE			
			ENVIROCOKE GROUND BED DEEP ANODE BED	
			DRAWING NO. PCS-CP-DAG-04	DATE: 07/31/2015

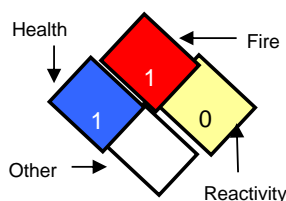
LORESCO, Inc.

Safety Data Sheet
Calcined Petroleum Coke Backfills

Issued 7/08/2015

Page 1 of 4

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	
PRODUCT USE:	Impressed Current Anode Backfill	<div>4 = Extreme 3 = Serious 2 = Moderate 1 = Minimal</div>	
COMPANY:	LORESCO, Inc. 421 J. M. Tatum Ind. Park Dr. Hattiesburg MS 39401		

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 - COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME:	Coke (Petroleum), calcined	Weight % (dry basis)	100
COMMON NAME AND SYNONYMS:	Calcined petroleum coke	CAS NUMBER	64743-05-1

SECTION 4 - FIRST AID MEASURES**HEALTH HAZARDS** Avoid contact with eyes. Wash thoroughly after handling.

EXPOSURE ROUTE	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
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), pneumonitis (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 mildly 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. 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 may be a potential explosion hazard.
SPECIFIC HAZARDS	Typical Decomposition Products: carbon oxides (CO/CO ₂), 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:	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.

SECTION 7 - HANDLING 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.
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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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 more stringent limits. Consult local agencies for further information.			
* ACGIH = American Conference of Governmental Industrial Hygienists		*** OSHA = Occupational Safety and Health Administration	
** TLV-TWA = 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.		
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 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 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Irregular, steel gray to black, granular solid.	ODOR	May have slight petroleum odor.
ODOR THRESHOLD	Not determined.	pH	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% Lower NA%
VAPOR PRESSURE	Not applicable.	RELATIVE DENSITY (water=1)	0.72 - 1.28
SOLUBILITY (in water)	Insoluble	PARTITION COEFFICIENT: n-octanol/water	Not applicable.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES (continued)

AUTO-IGNITION TEMPERATURE	670 C (1,238 F)	DECOMPOSITION TEMPERATURE	Not determined.
VISCOSITY	Not applicable.		

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY	Finely ground petroleum coke dust may become flammable or explosive.	CHEMICAL STABILITY	Stable
POSSIBILITY 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, various hydrocarbons and smoke. There are no hazardous decomposition products during recommended handling and storage.

SECTION 11 - TOXICOLOGICAL INFORMATION
HEALTH HAZARDS Avoid contact with eyes. Wash thoroughly after handling.

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.
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), pneumonitis (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 mildly irritating. Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals.	No data available.
CARCINOGENICITY (NTP)	The National Toxicology Program (NTP) has not identified calcined petroleum coke as known or anticipated carcinogen.	
CARCINOGENICITY (IAC)	The International Agency for Research on Cancer (IARC) has not identified calcined petroleum coke as a probable, possible or confirmed human carcinogen.	
CARCINOGENICITY (OSHA)	The Occupational Safety and Health Administration (OSHA) has not identified calcined petroleum coke as a carcinogen or potential carcinogen.	

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY	Calcined petroleum coke has a low potential to cause adverse effects on the aquatic and terrestrial environments.
PERSISTENCE AND DEGRADABILITY	Calcined petroleum coke does not readily degrade.
BIOACCUMULATIVE POTENTIAL	Calcined petroleum coke has a low bioaccumulative potential.
MOBILITY IN SOIL	Calcined petroleum coke is non-reactive and mobility in soil is low.
OTHER ADVERSE EFFECTS	None known

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 DISPOSAL CONSIDERATIONS

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 marine pollutant.		
TRANSPORTATION IN BULK	Hot calcined petroleum coke is regulated when loading cargo vessels, if the coke temperature exceeds 130F. (See 46 CFR 148.10).		
SPECIAL PRECAUTIONS	See the comment above for Transportation in Bulk.		

SECTION 15 - REGULATORY INFORMATION

SARA 311/312	Acute: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fire: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reactive: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Chronic: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pressure: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
SARA 313	This material contains no chemicals, above the de minimis levels, subject to the 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 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	
Philippines (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".	

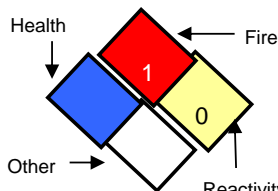
SECTION 16- DOCUMENTARY INFORMATION

ISSUE DATE	July 8, 2015
PREVIOUS ISSUE DATE	January 20, 2015
IDENTIFICATION	Calcined Petroleum
REVISION No.	3

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.

SECTION 1- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT/CHEMICAL NAME:	Calcined Petroleum Coke Compound	Emergency Phone No.	(601) 544-7490
IDENTIFICATION:	LORESCO® type EnviroCoke IV,	HMIS/NEPA HAZARD RATING <div>4 = Extreme 3 = Serious 2 = Moderate 1 = Minimal</div>	
CHEMICAL FAMILY:	Carbon Grout		
COMPANY:	LORESCO, Inc. 421 J. M. Tatum Ind. Park Dr Hattiesburg MS 39401.		

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 - COMPOSITION/ INFORMATION ON INGREDIENTS

COMPOSITION/ CAS No.	CAS #	Weight % (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
Health	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
	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), pneumonitis (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 mildly irritating. Prolonged or repeated contact may cause skin irritation or dermatitis to susceptible individuals. Wash down with generous amounts of water.	No Data Available

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 may be a potential explosion hazard.
SPECIFIC HAZARDS	Typical Decomposition Products: carbon oxides (CO/CO ₂), 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:	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.

SECTION 7 - HANDLING AND STORAGE

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 (see Section IX). Use a positive pressure air respirator, if there is potential for
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

COMPOSITION/ CAS No.	CAS #	EXPOSURE GUIDELINES ¹	
		ACGIH* TLV (8-hr TWA)**	OSHA*** 1910.1000 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 Nuisance 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	

1. 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.
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.

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 9 - PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE**

Irregular, steel gray to black, granular, solid

ODOR

May have slight petroleum odor.

ODOR THRESHOLD

Not determined.

pH

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%

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.

SECTION 10 - STABILITY AND REACTIVITY**REACTIVITY**

Finely ground petroleum coke dust may become flammable or explosive.

CHEMICAL STABILITY

Stable

POSSIBILITY 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, various hydrocarbons and smoke. There are no hazardous decomposition products during recommended handling and storage.

SECTION 11 - TOXICOLOGICAL INFORMATION**HEALTH HAZARDS** Avoid contact with eyes. Wash thoroughly after handling.**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.

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), pneumonitis (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.

No data available.

CARCINOGENICITY (NTP)

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SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY	Calcined petroleum coke has a low potential to cause adverse effects on the aquatic and terrestrial environments.
PERSISTENCE AND DEGRADABILITY	Calcined petroleum coke does not readily degrade.
BIOACCUMULATIVE POTENTIAL	Calcined petroleum coke has a low bioaccumulative potential.
MOBILITY IN SOIL	Calcined petroleum coke is non-reactive and mobility in soil is low.
OTHER ADVERSE EFFECTS	None known

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.
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SECTION 14 - TRANSPORT DISPOSAL CONSIDERATIONS

UN NUMBER	Not applicable. Not regulated by DOT/ICAP/IATA	UN PROPER SHIPPING NAME	Not applicable. Not regulated by DOT/ICAP/IATA
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TRANSPORTATION IN BULK	Hot calcined petroleum coke is regulated when loading cargo vessels, if the coke temperature exceeds 130F. (See 46 CFR 148.10).		
SPECIAL PRECAUTIONS	See the comment above for Transportation in Bulk.		

SECTION 15 - REGULATORY INFORMATION

SARA 311/312	Acute: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fire: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reactive: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Chronic: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pressure: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
SARA 313	This material contains no chemicals, above the de minimis levels, subject to the 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 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	
Philippines (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

ISSUE DATE	July 8, 2015
PREVIOUS ISSUE DATE	January 2, 2014
IDENTIFICATION	Calcined Petroleum
REVISION No.	2

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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/>

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

Sam Brownback, Governor

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.