C-138

YEAR(S): 2002-2003 District I 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Sants Fe, NM 87505

300 State of New Mexico Energy Minerals and Natural Resources

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

DEC 0 3 2003

OIL CONSEDUATION

Submit Ongine Plus I Cop to Appropriate District Office

Form C-13 Revised March 17, 199

REQUEST FOR APPROVAL TO ACCEP	T SOLID WASTE
	4. Generator Electric Submersible Pump
1 RCRA Exempt: ☐ Non-Exempt: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	5. Originating Site Hobbs Pump Yard
Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8426 N. Dal Paso Hobbs New Mexico 88241	
9. Circle One:	
 A. All requests for approval to accept oilfield exempt wastes will be accompanied by a one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by nece material is not-hazardous and the Generator's certification of origin. No waste class approved 	essary chemical analysis to PROVE the
All transporters must certify the wastes delivered are only those consigned for transport	
BRIEF DESCRIPTION OF MATERIAL:	•
of waste status and chain of custody. Sundance would like approval to accept this material is	nto our Parabo Disposal Facility.
Estimated Volume 240 cy Known Volume (to be entered by the oper	ator at the end of the haul)cy
SIGNATURE / Com Com TITLE: President Waste Management Facility Authorized Agent	DATE: //-20-03
TYPE OR PRINT NAME: <u>Donna Roach</u> TELEPHONE	NO. <u>505-394-2511</u>
(This space for State Use)	
APPROVED BY: Martin 924 TITLE: Environment	DATE: 17.1103
APPROVED BY: Mostum 924 TITLE: Environment	1 6 cologst DATE: 12-3-03

CERTIFICATE OF WASTE STATES NON-EXEMPT WASTE MATERIAL

ORIGINAT	ing locatio	N: 4000 61	on Esp 3426 n. DAL PASO Hobbs	n.m. 8824
SOURCE:	OIFEN	Binst	73É	,
DISPOSAL!	LOCATION:	SUNDANC	CE SERVICES INC.	•
	that this waste Environmente Determination pursuant to the nature as now-knowledge no provisions of dudded or mine	is a non-ent il Protection / s. To my kno- e provisings o -hazardous, : "hazardous et û CFR, Part i d with the weardous waste"	e for disposal, I hearby eartify ampt waste as defined by the Agency's (EPA) July 1988 Regulatory wiedge, this waste will be analyzed of 40 CFR Part 261 to verify the I further certify that to my r listed waste" pursuant to the lift, Subparts C and D, has been ste to as to make the resultant pursuant to the provisions of 48	
	ndersigned as the he status of the v		subject site.	
		Name	- BANDY HinDS	
		Title/Anger	SUPERINSOR/ESP	مية الله
•		Address	HODDS O. DAL PARO	
		Signature	Range Winds	
		Detc	11-20-03	

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST AMALYSES RECOVER H6992-Water of the desired to the following of the control of the contro ð स्वाध्याष्ट्र DATE at medical chartening transparent or 101 East Mariant, Hothe, Mill S\$248 I ABITTO (and) see examiner (and) section? 1000 / 00001 40.0 R HOHUO **3001116** 1. Cantinul cannot accorpt versed obserges. Places for, written changes to (B16) 975-7926. 375 ğ CHOCO AO BARKO CARDINAL LABORATORIES, INC. 2111 Bending Ablieu, IX 19883 (PH GT-7061 Fax (P16) 675-7528 Project Danter: 110 Horne wall Company Names A PROPERTY AND A PARTY AND A P 16996-1 To all bear Total Charles Labito A per Sansk St.

9880h

167:1-202-205-8:731



PHONE (915) 679-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 . 101 E. MARLAND . HOBBS. NM 88240

ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

Receiving Date: 08/29/02

FAX TO:

Sampling Date: /08/29/02

Reporting Date: 09/03/02

Sample Type: WASTEWATER Sample Condition: COOL & INTACT

3.00 MULUUZ ELUD.

Project Number: NOT GIVEN

Sample Received By: AH Analyzed By: AH/BC

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

REACTIVITY

LAB NO. SAMPLE ID

Cyanide CORROSIVITY: IGNITABILITY

Sulfide (ppm)

(ppm)

ANALYSIS DATE:	08/30/02	08/30/02	08/29/02	08/30/02
H6992-1 -	Not reactive	Not reactive	6.80	>140
-		 		
		1		
				1
···		 		<u> </u>
Quality Control	NR	NR	7.04	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	101	NR
Relative Percent Difference	NR	NR	0.1	NR

METHOD: EPA SW-848 7.3, 7.2, 1010, 1311, 40 CFR 261

PLEASE NOTE. LIABILITY and Demages. Cardinat's fiability and client's exclusive namedy for any cosin anxing, whether based in contract or tors, shall be limited to the amount paid by client for analyses At charge, or third todg for regisjence and any other cause whattoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days ener completion of the applicable work of the shalle for incidental or consequential damages, including, without shallester incidental be fiable for incidental or consequential damages, including, without shallester incidental be fiable for incidental or consequential damages, including, without shallester incidental be fiable for incidental or consequential damages, including, without shallester incidental beginning to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02 Reporting Date: 08/30/02

Project Number: NOT GIVEN
Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Lab Number: H6992-1

Sample ID: -

Analysis Date: 08/29/02 Sampling Date: 08/29/02

Sample Type: WASTEWATER

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

	EPA	Sample Result	Method			True Value
TCLP VOLATILES (ppm)	LIMIT	H6992-1	Blank	QC	%Recov.	ac
Vinyl Chloride	0.20	<0.005	<0.005	0.109	109	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Methyl Ethyl Ketone	200	<0.050	<0.060	0.084	84	0.100
Chloroform	6.0	<0.005	<0.005	0.087	87	0.100
1,2-Dichloroethane	0.5	<0.006	<0.005	0.090	90	0.100
Benzene	0.5	<0.005	<0.005	0.114	114	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.109	109	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.091	91	0,100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.091	91	0.100

Q.	RECOVERY
\sim	IVECOA EVI

Dibromofluoromethane	95
Toluene-d8	118
Bromofluorobenzene	102

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

Date

PLEASE NOTE. Liability and Demegos. Cardinal's liability and clerify acclusive remedy for any chair arising, whether based in contract or lost, shall be limited to the amount paid by clients for analysis. All claims, including those for negligence and any other cause whatsoever enall be deemed waived unless made in writing and received by Certifinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, in a substitute or successions arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such visual is based upon any of the above-stated reasons or conserves.



ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02 Reporting Date: 08/30/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Lab Number, H6992-1

Pentachlorophenol

Sample ID: -

Analysis Date: /08/29/02 Sampling Date: 08/28/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

0.046

0.050

	EPA	Sample Result	Method			True Value
TCLP SEMIVOLATILES (ppm)	LIMIT	H6992-1	Blank	QC	% Recov.	QC
Pyridine	5.00	<0.050	<0.005	0.041	82	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.033	66	0:050
o-Cresol	200	<0.050	<0.005	0.044	88	0.050
m, p-Cresol	200	<0.050	<0.005	0.041	82	0.050
Hexachloroethane	3.00	<0.050	<0.005	0.029	58	0.050
Nitrobenzene	2.00	<0.050	<0.005	0.044	88	0.060
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.033	68	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.053	106	0.050
2,4,5-Trichlorophenol	400	<0.050	<0.005	0.052	104	0.050
2,4-Dinitrotcluene	0.130	<0.050	<0.005	0.046	92	0.060
Hexachiorobenzene	0.130	<0.050	<0.005	.0.053	106	0.050

< 0.050

<0.005

% RECOVERY

56
42
93
89
112
74

100

METHODS: EPA SW-848 1311, 8270, 3510

PLEASE NOTE: Liability and Damages. Cardinal's liability and dient's exclusive remedy for any calim arising, whether based in contract or fort, shall be limited to the amount paid by own for a wyver. All claims, including those for negligence and any other claims what service shall be deemed waived unless made in writing and received by Cardinal within thirty (50) days errer completion is the application service. In no event shall Cardinal be liable for incidental or consequential damages, including, without finitiation, business insumptions, loss of use, or loss of profits incurred by claim is caused upon any of the above-stated reasons of profits arising cut of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons of profits.

District II - (505) 748-1283 811 S. First District III - (505) 334-6178 1000 Rio Brazos Road Aztec, NM 87410 District IV - (505) 827-7131

Energy Minerals and Natural Resources Department IVED Originated & Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 DEC 1 0 2003

Submit Or Plus I to approp District (

ronn C

OIL CONSERVATION DIVISION:

DIVISION

REQUEST FOR APPROVAL TO ACCEPT S	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facili
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accommodately acceptance. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	ompanied by necessary chemical analysis to
All transporters must certify the wastes delivered are only those consigned	for transport.
BRIEF DESCRIPTION OF MATERIAL:	"
The following MSDS sheets are for Halliburcement. This waste is generated when the for an oilfield cement job and some cement put into a truck for holding until dispose certificate of waste status and MSDS on a by this facility. Sundance would like as material into our disposal. Please reference last approval dated I. Estimated Volume 400 tons cy Known Volume (to be entered by the open	it is left over. It is them sal. I have attached a sal of the cement types used oproval to accept 12232425262334
Estimated Volume 400 tons cy Known Volume (to be entered by the open	erator at the end of we haul) - cy
SIGNATURE: Waste Management Facility Authorized Agent DONNA L POACHY	
(This space for State Use)	
APPROVED BY THE ENVIRON	ENGR DATE: 12.8.03
APPROVED BY: Montage 9th. TITLE: Environmen	,

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	Halliburton Energy Services			
ADDRESS:5801 Lovington F	Iwy			
GENERATING SITE:	Hobbs Yard			
	COUNTY <u>Lea</u> STATE <u>NM</u>			
TYPE OF WASTE:Ce	ement			
ESTIMATED VOLUME:	20,000 SACKS			
GENERATING PROCESS:	Unused cement			
REMARKS:	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `			
NMOCD FACILITY:	Sundance			
TRUCKING FACILITY:	Halliburton			
as defined by the Environmental Protect To my knowledge, this waste will be as verify the nature as non-hazardous. If waste" pursuant to the provisions of 40 mixed with the waste so as to make the provisions of 40 CFR, Sections 2613. AGENT	CIGNATURE HARVEY PRICE PRINTED 5801 Lovington Hwy			
DATE:	12/3/2003			

District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

Energy Minerals and Natural Resources Department F D Oil Conservation Di ...ion

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

DEC 0 8 2003

Submit Ori Plus 1 (to approp District C

Originated 8

OIL CONSERVATION DIVISION.

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(This space for State Use)		
APPROVED BY DE DE SON	TTTLE: ENLIGE ENGR	DATE: 12,2,03
APPROVED BY: Mary gifty -	MILE: Environmanh 1 (sexlogist	DATE: 12/15/03

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	Halliburton
ADDRESS: 5801 Lo	vington Hwy
GENERATING SITE: <u>Hob</u>	bs Yard
	COUNTY Lea STATE NM
TYPE OF WASTE: Wash	Rack Grit
ESTIMATED VOLUME:	300 BBL.
GENERATING PROCESS: _	Wash Rack Sumps
REMARKS:	
NMOCD FACILITY:	Sundance
TRUCKING FACILITY:	Chaparral
as defined by the Environmental P To my knowledge, this waste will verify the nature as non-hazardous waste" pursuant to the provisions mixed with the waste so as to mak provisions of 40 CFR, Sections 26 AGENT: NAME:	lisposal, I hereby certify that this waste is a non-exempt waste Protection Agency's (EPA) July 1988 regulatory Determination. be analyzed pursuant to the provisions of 40 CFR Part 261 to s. I further certify that to my knowledge "hazardous of listed of 40 CFR, Part 261, subparts C and D, has not been added or the the resultant mixture a "hazardous waste" pursuant to the STATURE HARVEY PRICE PRINTED Lovington Hwy Hobbs, NM 88240
DATE	11/25/2003

A A

ARDINAL LABORATORIES, INC.

	2111 Beechwood, Abherre, IA 78003		(C) 202 2206 F = (E) 202 2 170	CONTO CONTO
Company Name: /-	1902 19 VCL 21 611 101			ANALYSIS REQUEST
Project Manager:	elio Baile		BHL 10 №#:	
Address: 5801	Louivators		Company:	
City: Frobs	عاكرال (بوهائع	0,7638	Attn:	
Phone #:			Address:	P.
Fax#:			City:	
Project #:	Project Owner:		State: Zip:	
Project Name:	CO DODOCA	SES	Phone #:	
Project Location:	MENY SCICIONI		Fax #:	8
FOR LAB USE ONLY		MATRIX	PRES. SAMPLING	<u> </u>
LAB I.D.	Sample I.D.	(G)RAB OR (C)ON CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID: ICE / COOL OTHER: DAT	Comp
H6538-1	00/1/00/1/100	<	7 50 68 C	230 /
CQ.	F. INASHBAUSUM	0		
2 -3	Jung-hadrenen			
<u>الل</u> ا (موا	19001 F301 3			
	damis (xa)			
PLEASE NOTE: Lipsking and De enalyses. At distine including the service. In no award shall Candin	PLEASE NOTE: Usbitty and Demages. Cardina's liability and ober's exclusive namedy for any deline at they whether besed in contract or toot, shad be larthed to the amount paid by the client for the analyses. At deline including those for negligance and any other cause what somewhat the cleaned welved uthes made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shad Cardina's believe for including all companies of the contractions, in no event shad Cardina's believe for including an open companies. Including without installing a larther services of profits incomined by client, its subsidiaries.	nady for any cisim strising whether based shall be dremed watved unless made in including without tentration, business into	d in contract or text, what be limited to the am a writing and received by Cardinal within 30 d emptions, loss of use, or loss of profits know	Ant paid by the clark for the Terms and Conditions; interest will be changed on at accounts more than by after completion of the applicable 30 days part due at the rate of 24% per annum from the original date of involce, and at costs of collections, including attorney's fives.
Sampler Relinquished		Received By:	17.15	
	Time:			REMARKS:

Sample Condition
Cool Intact
Yes 7 Tes

CHECKED BY: (Initials)

'Sampler / UPS - Bus - Other:

(Circle One)

Relinquished By:

Received By: (Lab Staff)



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02
Reporting Date: 02/27/02
Project Number: NOT GIVEN
Project Name: SUMP ANALYSES
Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.030	60	0.050
o-Cresol	200	<0.050	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.050	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.050	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.050	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.050	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.050	<0.005	0.044	88	0.050

% RECOVERY

Fluorophenol	39
Phenol-d5	25
Nitrobenzene-d5	77
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	93
Terphenyl-d14	87

METHODS: EPA SW-846 1311, 8270, 3510

Burgess J. A. Cooke, Ph. D.

42705



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/25/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	Q.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	< 0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.018	0.018	0.103	103	0.100

and the same of th	% RECOVERY	
Dibromofluoromethane	103	
Toluene-d8	99	
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

Date

2/27/02



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02 Sampling Date: 02/22/02

Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH

(mg/L)

H6538-1	LOGGIN GRIT TRAP	1490
·		
,		
Quality Control		9.67
True Value QC		10.0
% Recovery		96.7
Relative Percent D		0.8

METHOD: EPA 418.1

6

Date

PLEASE NOTE: Liability and Damages. Cerdinal's liability and client's exclusive remedy for any claim arraig, wherether bead in the bead in the state of the claims. Including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable. All claims, including those for no event shall Cardinal be liable for incidental or consequential damages, including, without finitiation, business interruptions, loss of use, or loss of profits incurred by clean, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02

Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER

SAMPLE ID

TPH

(mg/Kg)

H6538-2	COMPOSITE OF E. & W.	2420
	WASHBAY SUMPS	
Quality Control		250
True Value QC		240
% Recovery		104
% Recovery Relative Percent D	ifference	9.5

METHOD: EPA 418.1



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QС	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	. <0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0,5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0 .005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	< 0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0 .006	0.040	0.103	103	0:100

DŁ	RECOVER	ν

in the state of th	% RECOVERY	
Dibromofluoromethañe	106	
Toluene-d8	113	
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Hexachlorobenzene

Pentachlorophenol

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

0.042

0.044

84

88

0.050

0.050

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	< 0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.020	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	92	0.050

< 0.020

< 0.020

< 0.005

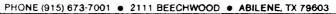
< 0.005

····	% RECOVERY
Fluorophenol	49
Phenol-d5	37
Nitrobenzene-d5	67
2-Fluorobiphenyl	67
2,4,6-Tribromophenol	67
Terphenyl-d14	66

100

0.130

METHODS: EPA SW-846 1311, 8270, 3510





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSIS Project Location: HOBBS, NM Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER #2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ва	Cd	Cr	Pb	Hg	Se
		ppm							
ANALYSIS	DATE:	02/27/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	02/28/02
EPA LIMITS		5	5	100	1	5	5	0.2	1
H6538-1	LOGGING GRIT TRAP	<1	<1	<5	<0.1	<1	<1	< 0.02	<0.1
H6538-2	COMP. EAST &	<1	· <1	<5	<0.1	<1	<1	<0.02	<0.1
1	WEST WASHBAY								
:	SUMPS					!			
									:
		j							
•	i se					L			
Quality Con	ntrol	0.150	4.601	21.62	0.976	4.634	4.380	0.00662	0.156
True Value	QC	0.150	5.000	25.00	1.000	5.000	5.000	0.00600	0.150
% Recovery	y İ	100	92.0	86.5	97.6	92.7	87.6	110	104
******	andard Deviation	0.7	0.2	3.3	0.1	0.6	0.1	10.3	1.6
METHODS	EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill, Chemist





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY

5801 LOVINGTON HWY HOBBS.NM 88240

FAX TO:

Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER

#2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSIS

Project Location: HOBBS, NM

-v 🚗

REACTIVITY

LAB NUMBE SAMPLE ID	Sulfide	Cyanide	CORROSIVITY	IGNITABILITY
	(ppm)	(ppm)	(pH)	(°F)

ANALYSIS	DATE:	02/27/02	02/27/02	02/27/02	02/28/02
H6538-1	LOGGING GRIT T	RAFNot reactive	Not reactive	7.47	>140
H6538-2	COMP. EAST &	Not reactive	Not reactive	10.4	Nonflammable
	WEST WASHBAY				
	SUMPS				
				· · · · · · · · · · · · · · · · · · ·	
Quality Co.	ntrol	NR	NR	7.08	NR
True Value	: Q C.	NR	NR	7.00	NR
% Recover	у	NR	NR	101	NR
Relative Pe	ercent Difference	NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Hobbs, NM 88241-1980 District II - (505) 748-1283 1,811 S. First Artesia, NM 88210 District III - (505) 334-6178 1000 Rio Brazos Road Axtec, NM 87410 District IV · (505) 827-7131

Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Medico 87505 NOV 0 3 2003 (505) 827-7131

Submit Or Plus l to appro District (

TOTHE C.

Originated 8

OIL CONSERVATION

!! ||

REQUEST FOR APPROVAL TO ACCEPT	SOLIDWASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facili
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. B. All requests for approval to accept non-exempt wastes must be accepted.	companied by necessary chemical analysis to on of origin. No waste classified hazardous by
All transporters must certify the wastes delivered are only those consigned BRIEF DESCRIPTION OF MATERIAL:	for transport.
The following MSDS sheets are for Hallibucement. This waste is generated when the for an oilfield cement job and some cement put into a truck for holding until dispose certificate of waste status and MSDS on a by this facility. Sundance would like a material into our disposal. Please veterere last approval dated 5. Estimated Volume 400 fons cy Known Volume (to be entered by the open content of the content	all of the cement types used pproval to meet this
SIGNATURE: Wasse Management Facility Authorized Agent TYPE OR PRINT NAME: DONNA L. ROACHH TEI	MGR DATE: 10-23-03 LEPHONE NO. 505-394-2511
APPROVED BY: May M- TITLE: Environm	

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	Halliburton Energy Serv	rices
	ton Hwy	
GENERATING SITE:	Hobbs Yard	
	COUNTY Lea	STATE NM
TYPE OF WASTE:	Cement	
ESTIMATED VOLUME:	20,000 sacks	
GENERATING PROCESS:	Unused cement	
		
REMARKS:		
NMOCD FACILITY:	Sundance	
TRUCKING FACILITY:	Halliburton	<u>-</u>
as defined by the Environmenta To my knowledge, this waste waste waste of the nature as non-hazardo waste" pursuant to the provision	or disposal, I hereby certify that this waste is a non- il Protection Agency's (EPA) July 1988 regulatory ill be analyzed pursuant to the provisions of 40 CF ous. I further certify that to my knowledge "hazard ins of 40 CFR, Part 261, subparts C and D, has not hake the resultant mixture a "hazardous waste" purs 2613	Determination. R Part 261 to ous of listed been added or
AGENT.	SIGNATURE	
NAME:	Harvey Price	_
ADDRESS:	5801 Lovington Hwy	
DATE:	10/21/2003	

District II - (505) 748-1283 811 S. First ::: Artesia, NM 88210 District III . (505) 334-6178 1000 Rio Frazos Road Aztec, NM 87410 District IV - (505) 827-7131

Oil Conservation Dission 2040 South Pacheco Street Santa Fe, New Mexico 87505

SEP 1 5 2003

Submit (Plus to appr District

Originated

OIL CONSERVATION DIVISION

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

(505) 827-7131

1. RCRA Exempt: Non-Exempt: 🔀	4. Generator HALLIBURTON
Verbal Approval Received: Yes No No	5. Originating Site HOBBS FACIL
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter CHAPARRAL
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovinto	n HWy Hobbs, NM 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	ompanied by necessary chemical analysis
All transporters must certify the wastes delivered are only those consigned	for transport.
BRIEF DESCRIPTION OF MATERIAL:	
The following waste is generated by the washing o	f tools and oil
equipment. This analytical is from Halliburtons	Hobbs facility.
Sundance would like approval to acppet this waste	into our Parabo facility.
•	
Estimated Volume 300 bbls cy Known Volume (to be entered by the op	erator at the end of the haul)
SIGNATURE: OFFICE	MGR DATE:
Waste Management Facility Authorized Agent	EPHONE NO505-394-2511
email: Ssidonna@aol.com	
(This space for State Use)	
APPROVED BY Solveson TITLE ENVIRO	ENER DATE 9/10/03
m, in	m4/ Geologist DATE: 9/17/03
	V (

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	Halliburton
ADDRESS: 5801 Lovington H	wy
GENERATING SITE: Hobbs Yard	
	COUNTY <u>Lea</u> STATE <u>NM</u>
TYPE OF WASTE: Wash Rack Grit	
ESTIMATED VOLUME: 300,0	000 lbs.
GENERATING PROCESS:Wash Ra	ck Sumps
REMARKS:	
NMOCD FACILITY:	Sundance
TRUCKING FACILITY:	Chaparral
To my knowledge, this waste will be analyzed puverify the nature as non-hazardous. I further cert waste" pursuant to the provisions of 40 CFR, Par mixed with the waste so as to make the resultant provisions of 40 CFR, Sections 2613. AGENT NAME: HAR	ncy's (EPA) July 1988 regulatory Determination. Insuant to the provisions of 40 CFR Part 261 to a sify that to my knowledge "hazardous of listed to 261, subparts C and D, has not been added or mixture a "hazardous waste" pursuant to the CEY PRICE PRINTED
DATE: 0/2/2002	



ARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240

	(915) 673-7001 Fax (915) 673-7020	L	(505) 393-2326 Fax (505) 393-2476	3-2476	of the second se	
Company Name: -	HUUBUKTON.	FILLERGY SERVICE	<i>V</i>		ANALYSIS REQUEST	
Project Manager:	Utand Brillian		BILL TO PO#:			
Address: 5601	Lock ration the		Company:			
SYCHEM : MIC	Starb;)))Zip: {		Attn:			
Phone #:			Address:	-P		
Fax#:			С#у:			
Project#:	Project Owner:		State: Zlp:	T		
Project Name:	600000000	565	Phone #:			
Project Location:	HONOS VIARD		Fax #:	S.		
FOR LAB USE OHLY		MATRIX	PRES. SAMPLING	LQ		
LAB I.D.	Sample I.D.	NTAINERS UNDWATER TEWATER OGE	ER: COOL ER:	COMPI TPH		
日でのスター	09/4 + 19610 1660 1	<u> </u>	,	2 N SKC		
	P. INTERPRETATION					
	CHARACKER COLOR			1014		
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	Coning had					
PLEASE MOTE: Liabity and Dar malyses, All dalms, including from	PLATE HOTE: Ubitity and Danages, Cardwar's lability and diserts exclusive messay for any salimately weather best in covered or for, mad as similar to the amount paid by the distribution of the property of the property of the property and the covered of the property of the control of the covered or of the control of the	y for any cisim arising whether beend	esy fire any colimanative whose beautin comment or lost, seed to arrived to the account peaking the date for partial or destination of the control of the co	arrount paid by the clear for the opposition of the apparatue	Farm and Conditions: there are an energy on all accounts more than the of the one of the	Side.
service. In no event shall Cardha (Milates or subcessors arising ou	sedos. In no event shall Cardinal be fathe for indidental or consequental demagns, individing whold intription, business stremptions, loss of their, or loss of profits incurred by clard, its subsidiaries, inflates or publishes and shall be and consequent of the consequence of th	siding without limitation, business file or by Cardnel, reporteess of whether	muchions, loss of use, or loss of profits in	coursed by client, its substitution,		
Sampler Relinquished:	Sampler Relinguished: Date: Received By: Phone Result: U Ye Fax Result: D Ye REMARKS: REMARKS:	Received By:		Phone Result U Yes U Fax Result D Yes D REMARKS:) No Additional Fax 2:	
Relinquished By:	Circle One)	Received By: (Lab Staff) Sample Condition Ct	± X-			
PS .	Bus - Other:	D No D No	(initials)			

[†] Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	% Recov.	True Value QC
Total General (ppin)	C11411 1	110000	Dianik	90	70 Treesy.	Q.O
Pyridine	5.00	<0.050	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.030	60	0.050
o-Cresol	200	<0.050	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.050	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.050	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.050	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	< 0.050	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.042	84	0.050
Pentachlorophenol	100	< 0.050	<0.005	0.044	88	0.050

% RECOVERY

Fluorophenol	39
Phenol-d5	25
Nitrobenzene-d5	77.
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	93
Terphenyl-d14	87

METHODS: EPA SW-846 1311, 8270, 3510





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240

FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/25/02 Sampling Date: 02/22/02

Sample Type: WASTEWATER
Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	< 0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	< 0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.018	0.018	0.103	103	0.100

% RECOVERY

Dibromofluoromethane	103
Toluene-d8	99
Bromofluorobenzene	108

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Ocoke, Ph. D.

Date

2/27/02



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240

FAX TO:

Receiving Date: 02/22/02

Reporting Date: 03/01/02

Project Number: NOT GIVEN

Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02

Sampling Date: 02/22/02

Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH (mg/L)

H6538-1	LOGGIN GRIT TRAP	1490
	·	<u> </u>
Quality Control		9.67
True Value QC		10.0
% Recovery		96.7
Relative Percent D	ifference	0.8

METHOD: EPA 418.1



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN

Project Name: SUMP ANALYSES Project Location: HOBBS YARD

H6538-2

Analysis Date: 02/28/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH (mg/Kg)

9.5

COMPOSITE OF E. & W 2420

Quality Control 250 True Value QC 240 % Recovery 104

WASHBAY SUMPS

METHOD: EPA 418.1

Relative Percent Difference



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	. 0.094	94	0.100
Methyl Ethyl Ketone	200	<0 .050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0 .005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0 .006	0.040	0.103	103	0.100

% RECOVERY

Dibromofluoromethane	106
Toluene-d8	113
Bromofluorobenzene	108

METHODS: EPA SW 846-8260, 1311



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Name. SOMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.020	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	< 0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.020	<0.005	0.044	88	0.050

	% RECOVERY
Fluorophenol	49
Phenol-d5	37
Nitrobenzene-d5	67
2-Fluorobiphenyl	67
2,4,6-Tribromophenol	67
Terphenyl-d14	66

METHODS: EPA SW-846 1311, 8270, 3510

Burgess J. A. Cooke, Ph. D.

2/27/02



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSIS Project Location: FIOBBS, NM Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER #2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ва	Cd	Cr	Pb	Нд	Se
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
ANALYSIS	DATE:	02/27/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	02/28/02
EPA LIMIT	S:	5	5	100	1	5	5	0.2	1
H6538-1	LOGGING GRIT TRAP	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
H6538-2	COMP. EAST &	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
The second section of the second section of the second section of the second section s	WEST WASHBAY								
11	SUMPS								;
1									
:		!	1		Į.			1	
1-11-11-11-1			!	!	!	:	1	:	*
		į.		į		į	i		i.
•									\$
Quality Con	itrol :	0.150	4.601	21.62	0.976	4.634	4.380	0.00662	0.156
True Value		0.150	5.000	25.00	1.000	5.000	5.000	0.00600	0.150
% Recover	· ·	100	** * *	86.5	97.6	1	87.6	110	104
	andard Deviation	0.7	0.2	3.3				10.3	
, relative Sta	andard Deviation	0.7	0.2	3.3	0.1	0.0	0.1	10.3	1.6
METHODS:	EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	 218.1	239.1	245 1	270.2

Amy Hill Chemist

Date

PLEASE NOTES 30 Set 11 part of the amount paid by chent for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal the liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY

5801 LOVINGTON HWY HOBBS.NM 88240

FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02

Project Number: NOT GIVEN Project Name: SUMP ANALYSIS Project Location: HOBBS, NM

Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER

#2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

REACTIVITY

	(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
LAB NUMBE SAMPLE ID	Sulfide	Cyanide	CORROSIVITY	IGNITABILITY
	(ppm)	(ppm)	(pH)	(°F)

ANALYSIS	DATE:	02/27/02	02/27/02	02/27/02	02/28/02
H6538-1	LOGGING GRIT TRAF	Not reactive	Not reactive	7.47	>140
H6538-2	COMP. EAST &	Not reactive	Not reactive	10.4	Nonflammable
	WEST WASHBAY	1			
	SUMPS				
!		1	į		Ĺ
	Was seen and a contract of		!		<u> </u>
Quality Co	ntrol	NR	NR	7.08	NR
True Value	QC	NR	NR	7.00	NR
% Recover	ry	NR	NR	101	NR
	ercent Difference	NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

District II - (505) 748-1283 811 S. Arst . Artesia, NM 88210 District III - (505) 334-6178 1000 Rio Frazos Road Aztec, NM 87410 District IV - (505) 827-7131

Energy Minerals and Natural Resources Department Oil Conservation Diation 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

Submit O Plus I

Originated

to appro District (

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator HALLIBURTON
Verbal Approval Received: Yes No No	5. Originating Site HOBBS FACIL
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter CHAPARRAL
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovinto	n Hwy Hobbs, NM 88240
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	ompanied by necessary chemical analysis to on of origin. No waste classified hazardous b
All transporters must certify the wastes delivered are only those consigned	for transport.
BRIEF DESCRIPTION OF MATERIAL:	# !! !!
The following waste is generated by the washing of	
equipment. This analytical is from Halliburtons	•
Sundance would like approval to acppet this waste	e into our Parabo facility.
Estimated Volume 300 bbls cy Known Volume (to be entered by the on	perator at the end of the haul)
Estimated Volume 100 bbls cy Known Volume (to be entered by the op	MGR DATE 10-15-03
SIGNATURE: Waste Management Facility Authorized Agent Waste Management Facility Authorized Agent	MGR DATE 10-15-03
DALLIE V DALATITE	LEPHONE NO. 505-394-2511
(This space for State Use)	
APPROVED BY TITLE: ENVIROCE	NER DATE: 10.16.03
APPROVED BY: Martyne 2 th TITLE: Envivonm	

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR: Halliburton
ADDRESS: 5801 Lovington Hwy
GENERATING SITE: Hobbs Yard
COUNTY Lea STATE NM
TYPE OF WASTE: Wash Rack Grit
ESTIMATED VOLUME: 300,000 lbs.
GENERATING PROCESS: Wash Rack Sumps
REMARKS:
NMOCD FACILITY: Sundance
TRUCKING FACILITY: Chaparral
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous of listed waste" pursuant to the provisions of 40 CFR, Part 261, subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613. AGENT: Marvey Price
DATE: 10/13/2003

(A)	对	į
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RDINAL LABORATORIES, INC. 2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240

,	(915) 673-7001 Fax (915) 673-7020	1	(505) 393-2326 Fax (505) 393-2476	476 Page of	
ompany Name: /-	HALLIBLICTON F	MERGU SERVICE	*	ANALYSIS REQUEST	
roject Manager:	Stew Briles		### PO 100 #:		
ddress: 5801	Locination	A	Company:		
STOCK IN	Starte:) \Zip:	CACSS ::	Attn:		
TO 1			Address:	P	
ax #;			City:		
roject#:	∩∩? Project Owner:		State: Zip:		
roject Name:	ECP ANAU	4565	Phone #:		
roject Location:	HODOS YAR	3	Fax#:	3.	
FOR LAB USE ONLY		MATRIX	PRES. SAMPLING		
		RS ATER		n Pi	
Ş	Sample I.D.	E)RAB OF CONTAIN ROUNDA ASTEW/ DIL L LUDGE	THER: CID: E/COOK THER:	Ca	
16538-)	35/10/10/10/10/10/10/10/10/10/10/10/10/10/) KOLOSIC		
1	INSPERINGERY.	3			
	urstactust rest				
40	ALL TO ALLOW				
	SWITH WASH				
	TUTIC KACI				
RASE NOTE: LINSTY and Dar	ages. Cardine's lightly and dien's acchains	remady for any chain attains whether bas	Asset HOTH: Lighter and Carping's lightly and clearly exclusive remarks for any claim stating whether based in contract or lot, what he indicated to the amount cased by the class for the	and and by the clark for the	
alyses. All cisins including the naice. In no event shall Cardina	e for negligance and any other cause whatsoe the liable for incidental or consequental dames of or misted to the negligance of sendings to	wer shall be deemed walved unless made per, including without installon, business is a supplied to the control of the control	alyses. At deline including those for medigenous and any other causes what loss were that be desired waived unless made in writing and received by Candinal within 10 days after completion of the applicable whose in the control of the applicable of the control of the control of the control of the applicable of the control of the contro	pplication	
ampler Relinquish	ed: Date:	Received By:	ampler Relinquished: Date: Received By: Phone Result D Ye		
<u>.</u>	Time:	-	N.	REMARKS:	
telinguished By:		Received By: (Lab Staff)	(Lab Staff)		
Deliwered By: 10	Circle One)	Sample Condition	CHECKED BY:		, <u>.</u>
•	us - Other:	Top Intact			



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.030	60	0.050
o-Cresol	200	<0.050	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.050	<0.005	0.038	76	0.050
Hexachioroethane	3.00	<0.050	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.050	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.050	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.050	<0.005	0.044	88	0.050

% RECOVERY

Fluorophenol	39
Phenol-d5	25
Nitrobenzene-d5	77
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	93
Terphenyl-d14	87

METHODS: EPA SW-846 1311, 8270, 3510

Burgess J. A. Cooke, Ph. D.

4210



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240

FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/25/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.099	99	0.100
Tetrachloroethylene	0.7	< 0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.018	0.018	0.103	103	0.100

% RECOVERY

Dibromofluoromethane	103	
Toluene-d8	99	
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311

Date

2/27/02





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02

Project Number: NOT GIVEN
Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02

Sampling Date: 02/22/02 Sample Type: WASTEWATER

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH (mg/L)

H6538-1	LOGGIN GRIT TRAP	1490

·		
	<u> </u>	
And the second		
Quality Control	<u> </u>	9.67
True Value QC		10.0
% Recovery		96.7
Relative Percent D	oifference	0.8

METHOD: EPA 418.1

Chemist



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240

FAX TO:

Receiving Date: 02/22/02
Reporting Date: 03/01/02
Project Number: NOT GIVEN
Project Name: SUMP ANALYSE

Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Analysis Date: 02/28/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH

(mg/Kg)

H6538-2	COMPOSITE OF E. & W.	2420
	WASHBAY SUMPS	
- 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1		
Quality Control		250
True Value QC		240
% Recovery		104
Relative Percent D	Difference	9,5

METHOD: EPA 418.1

Chemist

Date



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02
Reporting Date: 02/27/02
Project Number: NOT GIVEN
Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.006	0.040	0.103	103	0.100

% RECOVERY

	MILCOVERT	
Dibromofluoromethane	106	
Toluene-d8	113 .	
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311

Bargess J. A. Cooke, Ph. D.





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

< 0.005

<0.005

Receiving Date: 02/22/02

Reporting Date: 02/27/02 Project Number: NOT GIVEN

Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-2

Hexachlorobenzene

Pentachlorophenol

Analysis Date: 02/26/02

Sampling Date: 02/22/02

Sample Type: SLUDGE

Sample Condition: COOL & INTACT

0.050

0.050

Sample Received By: BC

Analyzed By: BC

0.042

0.044

84

88

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.020	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	92	0.050

< 0.020

< 0.020

% RECOVERY Fluorophenol 49 Phenol-d5 37 Nitrobenzene-d5 67

2-Fluorobiphenyl 67 2,4,6-Tribromophenol 67 Terphenyl-d14 66

0.130

100

METHODS: EPA SW-846 1311, 8270, 3510

2/27/02



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSIS Project Location: HOBBS, NM Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER #2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ва	Cd	Cr	Pb	Hg	Se
•		ppm							
ANALYSIS	DATE:	02/27/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	02/28/02
EPA LIMITS	S:	5	5	100	1	5	5	0.2	1
H6538-1	LOGGING GRIT TRAP	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
H6538-2	COMP. EAST &	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
	WEST WASHBAY						,		
:	SUMPS								
									i
						:			
1									
Quality Con	ntrol .	0.150	4.601	21.62	0.976	4.634	4.380	0.00662	0.156
True Value	•	0.150	5.000	25.00				0.00600	0.150
% Recovery		100					87.6	110	104
· · · · · · · · · · · · · · · · · · ·	andard Deviation	0.7		3.3			0.1		1.6
			,				•		
METHODS:	EPA 1311, 600/4-91/010	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill, Chemist

Date

PLEASE NOSES/Alizability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. At claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.





ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES

ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS.NM 88240

Receiving Date: 02/22/02 FAX TO:

Reporting Date: 03/01/02

H6538r

Project Number: NOT GIVEN

Project Name: SUMP ANALYSIS

Project Location: HOBBS, NM

Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER

#2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

REACTIVITY

LAB NUMBE SAMPLE ID	Sulfide	Cyanide (CORROSIVITY	IGNITABILITY
	(ppm)	(ppm)	(pH)	(°F)

ANALYSIS (DATE:	02/27/02	02/27/02	02/27/02	02/28/02
H6538-1	LOGGING GRIT TRAF	Not reactive	Not reactive	7.47	>140
H6538-2	COMP. EAST &	Not reactive	Not reactive	10.4	Nonflammable
ļ Ī	WEST WASHBAY	!			
1	SUMPS				
i i					
Quality Cont	rol	NR	NR	7.08	NR
True Value (QC	NR	NR	7.00	NR
% Recovery		. NR	NR	101	NR
Relative Per	cent Difference	NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

District II • (505) 748-1283 811 S. First Arcesia, NM 88210 District III • (505) 334-6178 1000 Rio Brazos Road

District IV - (505) 827-7131

Aztec, NM 87410

Energy Minerals and Natural Resources Department VFD Oil Conservation Division

2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

OCT 1 4 2003

Submit Or Plus I to approp District (

Originated 1

OIL CONSERVATION
DIVISION

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Baker Atlas
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facilit
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 1718 S. Dal Pas	o Hobbs, NM 88240
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	companied by necessary chemical analysis to
All transporters must certify the wastes delivered are only those consigned	d for transport.
BRIEF DESCRIPTION OF MATERIAL:	and the second of the second o
The following analtyical results are from This waste is generated by the washing of tools. I have included a certificate of custody. Sundance would like approval to our Parabo Facility. Estimated Volume 500 65; cy Known Volume (to be entered by the open state of the control	waste status and chain of o accept this material into
Estimated Volume cto be entered by the op	perator at the end of the haul) -ch
SIGNATURE & OTHE OFFICE	
TYPE OR PRINT NAME: DONNA L. ROACHH TE	LEPHONE NO. 505-394-2511
(This space for State Use)	,,
APPROVED BY Wholes TITLE ENVIRO	ENGR DATE: 10-9-03
APPROVED BY: Munting 2/2. TITLE: Env. ronn	

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

ORIGINA	TINGLOCATION:	Baker Atlas	Hobbs NM
SOURCE:	wash rac	k sump He	olding tonk
DISPOSAL	LOCATION: SUNDA	NCE SERVICES I	NC.
	As a condition of accepts that this waste is a non-configuration. To my keep pursuant to the provisions nature as non-hazardous knowledge no hazardous provisions of 40 CPR. Par added or mixed with the windure a hazardous wast CFR, Section 2613.	exempt waste as defined a Agency's (EPA) July is acwiedge, this waste will sold 40 CPR Part 261 to s. I further certify that to cor listed waste pursuant 261, Subparts C and Desite so as to make the s	by the 1988 Regulatory 1 be analyzed verify the 0 my at to the 1, has been verifient
	idenigued as the agent for he status of the waste from th	be subject elle.	er Atles
	Namo	Jerry	L. Anteie
	Title/Ange	ency Enginee	- In Charge
	Address	1718 SI	n 48246
	Signature		200
	Date	- 15	5-2003



ARDINAL LABORATORIES, INC. 2111 Beechwood, Abibono, TX 79683 101 East Mariand, Hobbs, NM 88240

Company Name: DAKey	er Hths	· 0.0	**		-	≱	ANALYSIS RE	REQUEST	
Address P.O. 1958		Con	Согарону						
Sapple	Mill seems	JOHN ONERS HE	*						
		一元 7306	Address:						
haject #	Project Owner		F						
Project Human: Sum D	ana lusi		egr. Zapc						
•	かりな	Pine	Phone 9:						
Sempler Name: 1977	u delle	Fax	A		Be************************************				
FOR USE OFF	7 .	XXXIVE	DIETARYS ANGESTE						
.*	<i>ک</i>	RB ITER							
Lab (.D.	Sample LD.	(Q)RAD CR ECONTAIN GROUNOW WASTEWA SOIL GRUDE OIL GRUDE OIL SLUDGE OTHER:	AGIO/BASE IGE / COOL OTHER	7-7					
17-11-Si	(Juni	7	7/25	15	-			+-	
					-			+	-
					-				
PERSONAL PROPERTY AND PROPERTY OF THE PROPERTY	te de referencia de acumularios describos describos de la companya	THE STATE OF THE S	aleite belieb is the second public by the start for the second se	A 6. 30			Topics and Ossaltham, Memori of the 20 days part day at devices of JPA per and at centre of calendary. Yell shap atte	layen gai Osadhan, Manuf di ka daga 10 days yani dan se danasi di JPA per pros 10 di cetir di cabadhan, Yebishiq danayiri	Angel and annua may be wree that to argue date at the work land
Sampler Reiniquished:	Date:	Rucewood By	THE PARTY OF THE P	Phone Result. Fax Requit. REMARKS	DYS	2 5 F	Add Phone F		
Railyanished By	Girole Onen 13:16	The state of the state							



PHONE (915) 673-7001 + 2111 BRECHWOOD + ABILENE, TX 79603

PHONE (606) 393-2326 . 101 E MARLAND - HORBS, NM 86240

ANALYTICAL RESULTS FOR BAKER ATLAS ATTN: JERRY ANTEE P.O. BOX 1858 HOBBS, NM 88241 FAX TO: (508) 393-7306

Receiving Date: 04/25/03
Reporting Date: 05/02/03
Project Number: NOT GIVEN
Project Name: SUMP ANALYSIS
Project Location: HOBBS, NM

Sampling Date: 04/25/03

Sample Type: 50:50 WASTEWATER:OIL Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ва	Cd	Cr	Рb	Hg	Se
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
ANALYSIS	DATE:	04/30/03	06/02/03	05/02/03	05/02/03	05/02/03	05/02/03	05/02/03	05/02/03
EPA LIMIT	S:	5	5	100	1	5	. 5	0.2	1
H7617-1	SUMP	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
		· · · · · · · · · · · · · · · · · · ·	; †********		,. 				
			<i></i>					<u> </u>	
		ļ						. , .	
<u> </u>									
Quality Con	iral	0.049	4.887	24.49	0.926	4.783	0.851	0.0104	0.055
True Value		0.050	5.000	25.00	1.000	5.000	1.000	0.0100	0.050
% Recovery	1	98.0	97.7	98.0	92.6	95.7	85.1	104	110
Relative Sta	indard Deviation	5.7	2.3	2.0	0.7	4.3	1.5	4.0	1.7
METHODS:	EPA 1311, 600/4-91	208.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill chemiat J Hill

5003 Date

H7817

PLEASE NOTE: Liability and Demagae. Cardinal's liability and cleant a exclusive remody for any summanding. Inhalitel based in convict or for, shall go limited to the amount paid by chent for disperse to negligance and any other countries and experse was educated in converted by Oppdines within thiny (30) days after compersor or the applicable source in no event shall Cardinal be liable to shaperned of consequential demagae, including, without limitation, Sustables interruptions, loss of title, of lost of profits incurred by the ret, its successful and liable to shape and or cleared to the performance of services interfered to experse of whother such clear to demand out or cleared to the performance of services interfered to expendence of the control of the above-stated reasons or introvice.



85/85/2003 Offor Tabbs 502-10 ---- --- -----



PHONE (\$15) 875-7001 + 2111 BEECHWOOD + ABILENE, TX 78603

PHONE (505) 393-2328 . 101 E MARLAND . MORBS, NM 68240

ANALYTICAL RESULTS FOR BAKER ATLAS ATTN: JERRY ANTEE P.O. BOX 1858 HOBBS, NM 88241 FAX TO: (505) 393-7308

Receiving Date: 04/25/03 Reporting Date: 05/02/03 Project Number: NOT GIVEN Sampling Date: 04/25/03

Sample Type:

50:50 WASTEWATER:OIL Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

Project Name: SUMP ANALYSIS Project Location: HOBBS, NM

LAB NO

SAMPLE ID

REACTIVITY

Cyanide CORROSIVITY IGNITABILITY Suitide (ppm) (maga)

(pH)

(°F)

ANALYSIS DATE:	05/02/03	05/02/03	04/29/03	04/29/03
H7817-1 SUMP	Not reactive	Not reactive	7.28	>140
- A - A - A - A - A - A - A - A - A - A				
Quality Control	NR	NR	7.01	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0.4	NR

METHOD: EPA SW-846 7.3, 7.2, 1010, 1311, 40 CFR 261



PHONE (815) 673-7001 + 2111 BEECHWOOD + ABILENE, TX 79603

PHONE (505) 393-2326 . 101 E. MARLAND . HOBES, NM 68240

ANALYTICAL RESULTS FOR BAKER ATLAS ATTN: JERRY ANTEE P.O. BOX 1858 HOBBS, NM 88241 FAX TO: (505) 393-7306

Receiving Date: 04/25/03
Reporting Date: 05/02/03
Project Number: NOT GIVEN
Project Name: SUMP ANALYSIS
Project Location: HOBBS, NM

Lab Number: H7617-1 Sample (D: SUMP Analysis Date: 05/01/03 Sampling Date: 04/25/03

Sample Type: 50:50 WASTEWATER: OIL Sample Condition: COOL & INTACT

Sample Received By AH

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H7617-1	Method Blank	oc	% Recov.	True Value
Pyridine	5.00	<0.020	<0.006	0.011	22	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.042	84	0.060
o-Cresol	200	<0.020	<0.005	0.046	92	0.050
m, p-Cresol	200	<0.020	<0.005	0.032	64	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.016	32	0.050
Nitrobenzene	2.00	< 0.020	<0.005	0.038	76	0.050
Hexachioro-1,3-butadiens	0.500	<0.020	<0.005	0.025	50	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.038	76	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.041	82	0.050
2.4-Dinitrotoluene	0.130	<0.020	<0.005	0.040	80	0.050
Hexachtorobenzene	0.130	<0.020	<0.005	0.039	78	0.050
Pentachlorophenol	100	<0.020	<0.005	0.037	74	0.050

	% RECOVERY	
Fluorophenoi	37	
Phenol-dő	29	
Nitrobenzene-d5	61	
2-Fluorobiphenyl	59	-
2.4.6-Tribromophenol	82	
Terphenyi-d14	83	

METHODS. EPA SW-848 1311, 8270, 3510

MI - Matrix Interference

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PLEASE NOTE, Lightity and Bennages. Cardinal's recitable exclusive remand for any claim arising, whether operan in contract or set in small be limited in the amount part by centuring enables.

As claims, installing made to negligance and any other cause emisponer and be germed when interest interest interest in any enter cause emisponer and by cardinal within many (30) days after consection of the applicable service. In an event shall for incidental or consequential damages, eliment invitation, business interruptions, lived on the consequential damages and interest incidental interruptions. The consequential damages are incidentally incidental interruptions, lived on the consequential reservice of the consequential damages.



PHONE (815) 673-7001 - 2111 BEECHWOOD - ABILENE, TX 78603

PHONE (505) 393-2326 + 101 E. MARLAND + HOBBS, NA/ 88740

ANALYTICAL RESULTS FOR BAKER ATLAS ATTN: JERRY ANTEE P.O. BOX 1868 HOBBS, NM 86241 FAX TO: (505) 393-7306

Receiving Date: 04/25/03
Reporting Date: 04/30/03
Project Number: NOT GIVEN
Project Name: SUMP ANALYSIS
Project Location: HOBBS, NM

Lab Number: H7617-1 Semple ID: SUMP Analysis Date: 04/28/03 Sampling Date: 04/25/03

Sample Type: 50:50 WASTEWATER: OIL Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H7617-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.008	0.810	810	0.100
1.1-Dichloroethylene	0.7	<0.005	<0.006	0.097	97	0.100
Methyl Ethyl Ketone	200	0.098	<0.050	0.118	118	0.100
Chloroform	6.0	< 0.005	<0.005	880.0	98	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.107	107	0.100
Benzene	0.5	<0.006	<0.005	0.099	99	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Triohiorosthylene	0.5	0.088	<0.005	0.097	87	0,100
Tetrachioroethylene	0.7	<0.006	<0.005	0.098	98	0.100
Chlorobenzena	100	<0.005	<0.005	0.098	98	0.100
1,4-Dichlorobenzene	7.5	<0.005	< 0.005	0.095	98	0.100

% RECOVERY

Dibromofluoromethane	89
Toluene-d8	88
Bromofluorobenzana	90

METHODS: EPA SW 848-8260, 1311

Date

PLEAGE NOTE: Liability and Barreges. Cardinal's liability and directly sociative transporter processing, whether bened in unitable or tant, shall be immiss to the amount paid by checking noting any paging and instruction or tant, shall be immissive that any other shall be important or tank that is not taken in which and instruction of the appropriate service. In the event shall Cardinal be liable for incidental or consequential damages, including, wherein limitation, business intercupations, loss of use, or loss of profits incurred by chart, he suppopriate, philates or everywhere of services are successors event of airly of or related to the performance of services have been suppopriated.



Baker Atlas

FACSIMILE COVER PAGE

P.O.BOX 1858 1718 S. DAL PASO HOBBS, NEW MEXICO

SENT FROM	50 \$-393-73 0 6	
YOICE CONFIRM	505-393-4181	
MESSAGE FOR	Jerry Antee	<u> </u>
MESSAGE FROM	5.5.03	
DATE SENT		*
TIME SENT	8:40 MT	•
TOTAL PAGES		
	COMMENTS	
		And the second s
OHATITY	TECHNOLOGY	FRVICE

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

SEP 1 1 2003

Form C-138 Revised March 17, 1999

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OIL CONSERVATION DIVISION Submit Original Plus 1 Copy to Appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt:	4. Generator ConocoPhillips
Uverbal Approval Received: Yes No	5. Originating Site Hobbs East Junction
2. Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 838E	
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certificate one certificate per job. All requests for approval to accept non-exempt wastes must be accompanied by necessary companied is not-hazardous and the Generator's certification of origin. No waste classified has approved	hemical analysis to PROVE the
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
The attached information is for waste generated at ConocoPhillips Hobbs East Junction lo crude oil from ground water contamination. This material will be centrifuged and reclaim has been approved from Mr. Bill Olsen and is on file with the NMOCD. Sundance would material possible.	ed at our Sundance Facility. A Stage II Abatement plan like approval to accept this material and reclaim any
Conoco Phillips Must Submita C-117 For transport	rkalion 12345678970;
of Miscellaneous Hydrocorbons. Myn	(5)
	SEP 2002
	SEP 203 1415 16 000 16
	65021222324-5150
Estimated Volume 120bbls. cy Known Volume (to be entered by the operator at the end	
SIGNATURE Waste Management Facility Authorized Agent TITLE: President	DATE: 9-2-03
TYPE OR PRINT NAME: <u>Donna Roach</u> TELEPHONE NO	505-394-2511
(This space for State Use)	
APPROVED BY: TITLE: FINISE ENCE	DATE: 9-11-03
APPROVED BY: Mutyn John TITLE: Environmental Ga	play, 51 DATE: 9-11-03

August 18, 2003

Ms. Donna Roach Client Services Sundance Services, Inc. Eunice, NM 88231



Higgins and Associates, LLC

Re:

Recycling of Recovered Crude Oil with Groundwater ConocoPhillips Pipe Line Hobbs East Remediation Project

Dear Ms. Roach:

From our discussion on August 13, 2003, on behalf of ConocoPhillips, Higgins and Associates, L.L.C. (Higgins) will retain a service company to transport recovered crude oil with groundwater (approximately 120 barrels) to your facility for recycling. Attached is the "certificate of waste status" signed by Ms. Dianne Seefried, ConocoPhillips.

Project activities commenced at the site in January of 2000 following the discovery of a release of crude oil from a gathering line at the Hobbs East junction. Assessment and remediation activities have been conducted at the site to define and address the crude oil impacts with the most recent activities consisting of the installation of a comprehensive soil and groundwater remediation system. The work being performed at the site is under the direction of the State of New Mexico's Oil Conservation Division (OCD), specifically Mr. Bill Olsen (telephone number: 505-476-3440). Higgins submitted a Stage II Abatement Plan to OCD. After approval by OCD, Higgins installed remediation equipment from August through October, 2002. The remediation system installation consisted of a soil vapor extraction (SVE) system, a sparging system, and expanding the existing product recovery system which was installed for initial abatement measures. Free product is recovered and stored at the site in an above ground storage tank. A site map illustrating the location of surface facilities, pipelines, monitoring wells, and remediation wells is attached.

Should you have any questions please contact Chris Higgins at (303) 708-9846 at the Centennial, Colorado office, or Nick Fischer at (505) 985-0030 at the Clovis, New Mexico office.

Sincerely.

Higgins and Associates, L.L.C.

Nick Fischer

Project Engineer

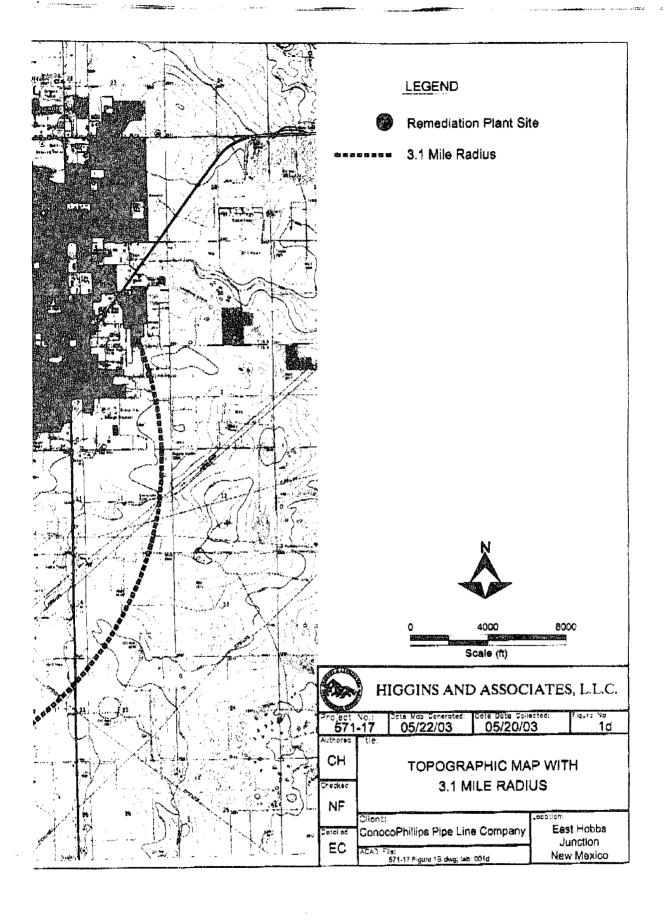
Chris Higgins

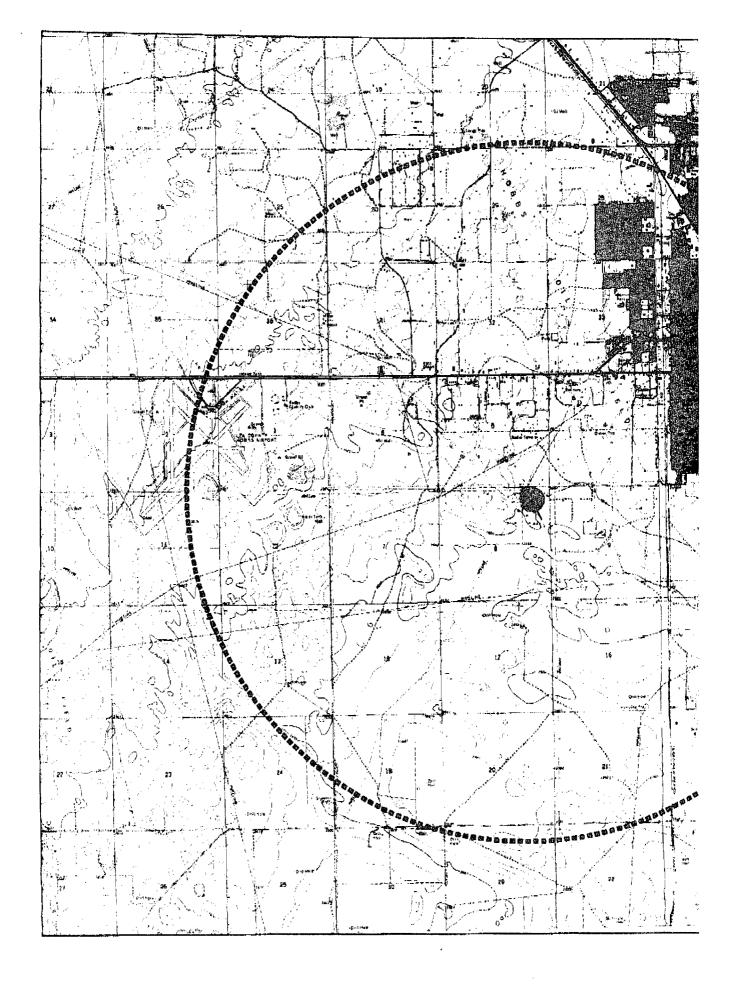
Project Manager

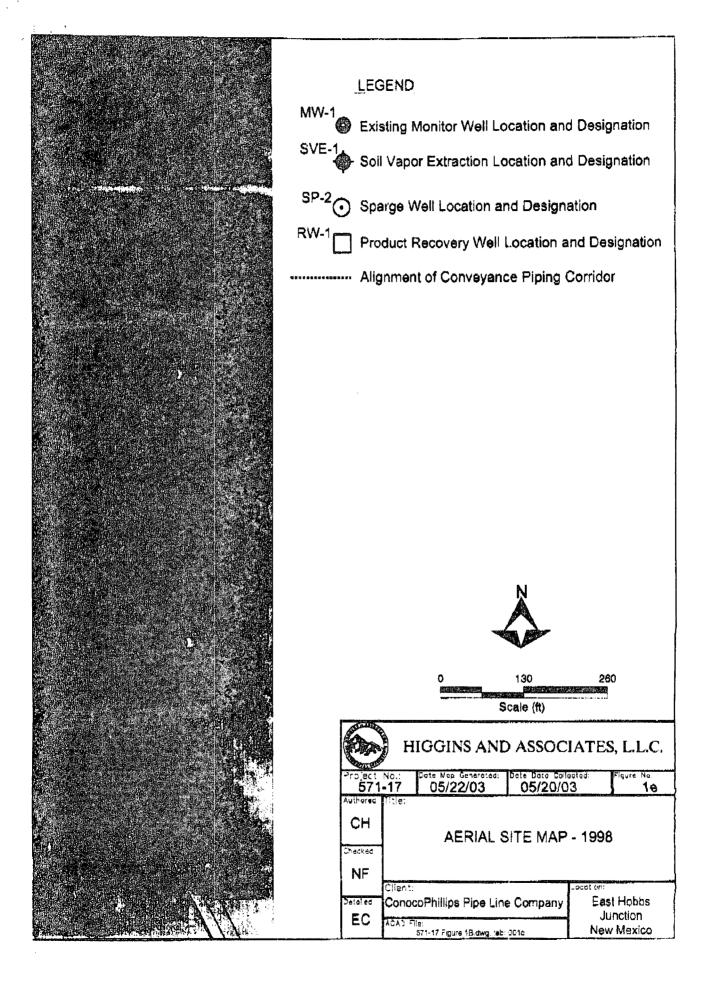
CERTIFICATE OF WASTE STATUS

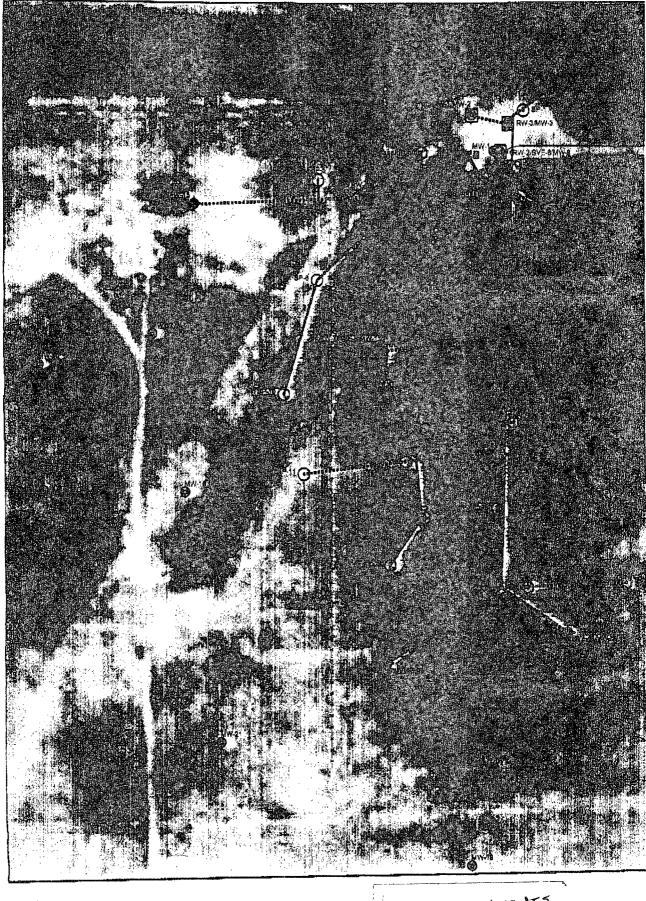
NON-EXEMPT WASTE MATERIAL

ORIGINAT	inglocation:	onocoPhillips Hobbs East Remediation Site
SOURCE	Re	covered Crude Oil & Groundwater from Remedia
DISPOSAL	LOCATION:	undance Services Inc unice, New Mexico
	As a condition of act that this waste is a new Environmental Protection. To a pursuant to the provincture as non—hazas knowledge no "hazas provisions of 40 CFF added or mixed with	eptance for disposal, I hearby certify on—exempt waste as defined by the ection Agency's (EPA) July 1988 Regulatory my knowledge, this waste will be analyzed isions of 40 CFR Part 261 to verify the dous. I further certify that to my dous or listed waste" pursuant to the L. Part 261, Subparts C and D, has been the waste so as to make the resultant waste" pursuant to the provisions of 40
	ndersigned as the agen he status of the waste f	
	Nan	
	Title	VADBERCY Site Manager/ConocoPhillips Rish Mant. & Reundiation
	Add	
	Sign	ature Drewe Svz
	Date	8/26/03









LOVE ATTACHMENTS THAT ARE SO CLEAR. noops, NM 88241-1980
District II - (505) 748-1283
811 S. First
Anesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

Energy Minerals and Natural Resources Department RECEIVED

Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

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MAY 2 3 2003

Environmental Bureau
Oil Conservation Division

Submit Orig Plus 1 C to appropri District Ofi

roum C-1

Originated 8/8

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: 🔀	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facillit
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	ompanied by necessary chemical analysis to
All transporters must certify the wastes delivered are only those consigned	for transport.
The following MSDS sheets are for Hallibucement. This waste is generated when the for an oilfield cement job and some cement put into a truck for holding until dispose certificate of waste status and MSDS on by this facility. Sundance would like a material into our disposal. PEASE reference last approval dated 3-	nt is left over. It is them sal. I have attached a all of the cement types used pproval to accept this
SIGNATURE: Waste Management FacilityAuthorized Agent TYPE OR PRINT NAME: DONNA L. ROACHH TEI	MGR DATE: 5-15-03 7 LEPHONE NO. 505-394-2511
APPROVED BY JA COLUMN TITLE: ENVIROEN	
APPROVED BY: Martin July TITLE: Environm	

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GE	NERATOR: _	Halliburton Ene	rgy Services
ADDRESS:	5801 Lovington	n Hwy	
GENERATING	SITE:	Hobbs Yard	
		COUNTY_	<u>Lea</u> STATE <u>NM</u>
TYPE OF WAS	TE:	Cement	
ESTIMATED V	OLUME:	20,000 SACKS	
GENERATING	PROCESS: _	Unused cement	
REMARKS:			
NMOCD FACII	LITY:	Sundance	
TRUCKING FA	CILITY:	Halliburton	
as defined by a To my knowle verify the natu waste" pursual mixed with the	the Environmental Pr dge, this waste will be re as non-hazardous. In to the provisions o	/_ / /	regulatory Determination. ns of 40 CFR Part 261 to dge "hazardous of listed D, has not been added or waste" pursuant to the
AG	ENT:	Juc E SIGNATURE	
NA	ME:	HARVEY PRICE PRINTED	
AD:	DRESS:	5801 Lovington Hwy	
DA	TE:	05/14/2003	

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District I 1525 N. French Dr., Hobbs, NM 88240

District IV

State of New Mexico

District II 1301 W. Grand Avenue, Artesia, NM 882101 2 1 2003

Energy Minerals and Natural Resources

District III

Oil Conservation Division 1000 Rio Brazos Road, Aztec, NM 87410 CONSERVATION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-138 Revised March 17, 1999

Submit Original Plus 1 Copy to Appropriate District Office

1220 S. St. Francis Dr., Santa Fe, NM 87505 DIVISION Santa Fe, NM 87505	District Office
REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
	4. Generator Electric Submersible Pump
RCRA Exempt:	Originating Site Hobbs Pump Yard
Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8426 N. Dal Paso Hobbs New Mexico 88241	
9. <u>Circle One</u> :	
 A. All requests for approval to accept oilfield exempt wastes will be accompanied by a connecertificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by neces material is not-hazardous and the Generator's certification of origin. No waste classification approved 	sary chemical analysis to PROVE the
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
The following analytical results are from Electric Submersible Pump's Hobbs Facility. This v tools. All equipment is washed into the sump and pumped to a waste water tank outside the bof waste status and chain of custody. Sundance would like approval to accept this material in Estimated Volume	building in a bermed area. I haved attached a certificate
SIGNATURE Waste Management Facility Authorized Agent TITLE: President	DATE: 6-25-03
TYPE OR PRINT NAME: <u>Donna Roach</u> TELEPHONE 1	NO. <u>505-394-2511</u>
(This space for State Use)	
APPROVED BY: TITLE: ENVIRO EME	DATE: 7-1-03
APPROVED BY Mantigue Title: Environment Co	eologist DATE: 7-21-03

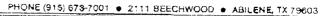
\$ T

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION	A: not od	20 h DAL PASO HUBBS NE 08/20
SOURCE:	OILFIELD RIN	SATE
DISPOSAL LOCATION:	SUNDANCE SER	VICES, PARABO FACILITY,
P.O. BOX 1737 EUNIC	E NM 88231	
that this waste Environments Determination pursuant to th nature as non knowledge no provisions of a added or mixe	is a non—exemp il Protection Ages L. To my knowled the provisions of 46 —hazardous. I fu "hazardous or lis 50 CFR, Part 261 and with the waste pardous waste" pu 2613.	r disposal, I hearby certify it waste as defined by the acy's (EPA) July 1988 Regulatory age, this waste will be analyzed CFR Part 261 to verify the rther certify that to my ted waste" pursuant to the a Subparts C and D, has been to as to make the resultant manant to the provisions of 40 ESP
concur with the status of the	_	
change went into altering of dan	Manan WANT PERAN	ralle an adoing
	Name	Rodingo Burrola
•	Title/Angenc	y ESP
	Address	8426 N DAL PASO
		HOBBS NM 88240_
	Signature	Goding Burnt
	Date	6-25-03

CHAIN OF CUSTODY AND ANALYSIS REQUEST ANALYBES REQUEST H6992-Table of the Substitute of the 3 5 0 8/19/103 PATE ARDINAL LABORATORNES, INC. 2111 Beachwood, Abben, TX 1963 101 Enc. Menters, Holbs, Mill 2020. · MEHLE STAC-695 (888) xe3 8533-805 (808) 1000 / EDI * O. C. CONTRACTO ו אביונה BOOTING Candinal cannot account verbal diseages. Please for written cleanges to (816) 679-7620. 101 37.00 MOOD AG BARKEN (948) 873-7001 Fax (918) 873-7039 Propert Owner. 1/1/ Semplo LD. 10996 Leb LD.

199 51.05 004 51.05





ANALYTICAL RESULTS FOR ESP ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240 FAX TO:

Receiving Date: 08/29/02 Reporting Date: 09/04/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Sampling Date: 08/29/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ba	Cd	Cr	Pb	Hg	Se
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
ANALYSIS	DATE:	09/03/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/04/02	09/03/02
EPA LIMITS	S:	5	5	100	1	5	5	0.2	
H6992-1		<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
				<u></u> !					
						T -		-	
				<u>. </u>	<u> </u>	·			
-									
Quality Cor	ntrol	0.049	4.935	48.29	0.956	4.972	5.040	0.0099	0.149
True Value		0.050	5.000	50.00	1.000	5.000	5.000	0.0100	0.150
% Recover	у ——	98.0	98.7	96.6	95.6	99.4	101	\$9.0	99.3
·	andard Deviation	1.6	0.2			0.7	1.3	1.0	4.1
METHODS	EPA 1311, 600/4	91, 206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Ch¢mist

Date

H6992

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any casin arising, whether based in contract or ton, shall be limited to the amount paid by client for analysis. All claims, including those for negligence and any other cause whatsoever shall be opened waved unless made in writing and received by Cardinal within thirty (30) days after completion or the applicable sorvice. In no event shall Cardinal be liable for incidental or consequential damages, including, without imitation, business interruptions, less of use, or loss of profits incomed by chem, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (915) 673-7001 . 2111 BEECHWOOD . ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

Receiving Date: 08/29/02

Reporting Date: 09/03/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

FAX TO: Sampling Date: 08/29/02

> Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH/BC

REACTIVITY

LAB NO. SAMPLE ID

Sulfide

Cyanide CORROSIVITY IGNITABILITY (pH)

(ppm)

(ppm)

(°F)

ANALYSIS DATE:	08/30/02	08/30/02	08/29/02	08/30/02	
H6992-1 -	Not reactive	Not reactive	6.80	>140	
				-	
•			·		
Quality Control	NR	NR	7.04	NR	
True Value QC	NR	NR	7.00	. NR	
% Recovery	NR	NR	101	NR	
Relative Percent Difference	NR	NR	0.1	NR	

METHOD: EPA SW-846 7.3, 7.2, 1010, 1311, 40 CFR 261

PLEASE NOTE. Liability and Demages. Cardinal's liability and client's exclusive remedy for any claim assing, whether based in contract or tort, shall be lifetied to the amount paid by client for snalyses. At claims, counting those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and measured by Cardinal within thiny (30) case after completion of the applicable serviced by decline and any other cause whatsoever shall be deemed waved unless made in writing and measured by Cardinal within thiny (30) case after completion of the applicable serviced by deam in which within the parameters of the parameters of representations of whether such date is based upon any of the above-stated reasons or whenever.





ANALYTICAL RESULTS FOR ESP ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240 FAX TO:

Receiving Date: 08/29/02 Reporting Date: 08/30/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Lab Number: H6992-1

Sample ID: -

Analysis Date: 08/29/02 Sampling Date: 08/29/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6992-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	< 0.005	<0.005	0.109	109	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.084	84	0.100
Chloroform	6.0	< 0.005	<0.005	0.087	87	0.100
1,2-Dichloroethane	0.5	< 0.005	<0.005	0.090	90	0.100
Benzene	0.5	< 0.005	<0.005	0.114	114	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.109	109	0.100
Trichloroethylene	0.5	< 0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.091	91	0.100
Chiorobenzene	100	< 0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.091	91	0.100

% RECOVERY

Dibromofluoromethane	95	
Toluene d8	118	
Bromofluorobenzene	102	

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D





ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02 Reporting Date: 08/30/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Lab Number: H6992-1

Sample ID: -

Analysis Date: 08/29/02 Sampling Date: 08/29/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6992-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.005	0.041	82	0.050
1,4-Dichlorobenzene	7.50	< 0.050	<0.005	0.033	66	0.050
o-Cresol	200	<0.050	<0.005	0.044	88	0.050
m, p-Cresol	200	<0.050	<0.005	0.041	82	0.050
Hexachioroethane	3.00	<0.050	<0.005	0.029	58	0.050
Nitrobenzene	2.00	< 0.050	<0.005	0.044	88	0.050
Hexachloro-1,3-butadiene	0:500	<0.050	<0.005	0.033	68	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.053	106	0.050
2,4,5-Trichlorophenol	400	<0.050	<0.005	0.052	104	0.050
2,4-Dinitrotaluene	0.130	<0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.053	106	0.050
Pentachlorophenol	100	< 0.050	<0.005	0.046	92	0.050

% RECOVERY

Fluorophenol	56
Phenol-d5	42
Nitrobenzene-d5	93
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	112
Terphenyl-d14	74

METHODS: EPA SW-848 1311, 8270, 3510

Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's excitative ramecy for any calm ansing, whether based in contract or tort, shall be limited to the amount paid by seven by analyses. All claims, including those for negligence and any other clieds whatsvever shall be deemed waived unless made in writing and received by Cardinal within thin; (30) days after completion of the applicative service. In no event shall Cardinal be liable for incidental or consequential damages, including, without first atmitted, business interruptions, loss of use, or loss of profits incurred by client, as subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regurdless of whether such claim is passed upon any of the above-stated reasons or otherwise.

Fabbs, NM 88241-1980 <u>District II</u> - (505) 748-1283 811 S. First Artesia, NM 88210

District III · (505) 334-6178 1000 Rio Brazos Road Aziec, NM 87410

District IV - (505) 827-7131

Energy Minerals and Natural P sources Department

Oil Conservation Jivision 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 RECEIVED

Submit Plu to app Distri

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Originau

WAD 1 R 2003

Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator HALLIBURTON
Verbal Approval Received: Yes No No	5. Originating Site HOBBS FACI
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter UNKNOWN
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 LOVING	TON, hyHOBBS, N.M. 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accepted acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned.	companied by necessary chemical analysi on of origin. No waste classified hazardou:
BRIEF DESCRIPTION OF MATERIAL:	· · · · · · · · · · · · · · · · · · ·
The attached MSDS is for sand mixed at Hall This material becomes a waste when ther is material frac jobs. Sundance would like approval to accept Parabo Disposal Facility.	at felt over from same
Note: This is an ongoing waste stream. Please reference last approved dated 2-24	103 for msDs (www)
Estimated Volume 200 vds cy Known Volume (to be entered by the op	perator at the end of the haul)
SIGNATURE: OFFICE SIGNATURE: OFFICE	E MGR DATE: 3-1/-03

(This space for State Use)

APPROVED BY: DATE: 3/14/03

APPROVED BY: Manty Sty. TITLE: Environmental Co

Waste Management Facility Authorized Agent

E: Environmental Geologist DATE: 3/1

TELEPHONE NO.

505-394-2511

TYPE OR PRINT NAME: DONNA L. ROACHH

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	<u>HIES</u>
ADDRESS: 580	1 Lovington Hwy Hobbs, NM
GENERATING SITE:	HES
COUNTY <u>Lea</u>	STATE_NM_
TYPE OF WASTE:20/4 ESTIMATED VOLUME:	
GENERATING PROCESS:	Unused on job
REMARKS:	
NMOCD FACILITY:	Sundance
TRUCKING FACILITY: _	Hes
as defined by the Environmenta To my knowledge, this waste w verify the nature as non-hazardo waste" pursuant to the provision	r disposal, I hereby certify that this waste is a non-exempt waste I Protection Agency's (EPA) July 1988 regulatory Determination. ill be analyzed pursuant to the provisions of 40 CFR Part 261 to ous. I further certify that to my knowledge "hazardous of listed as of 40 CFR, Part 261, subparts C and D, has not been added or ake the resultant mixture a "hazardous waste" pursuant to the 261).
AGENT:	SIGNATURE
NAME:	HARVEY PRICE PRINTED
ADDRESS:	5801 Lovington Hwy., Hobbs, NM 88240
DATE:	3/6/2003

TACAS TATEXTON

Hobbs, NM 88241-1980 District 11 - (505) 748-1283 841 S. First

.. / . / . / . / . /

Artesia, NM 88210 District III · (505) 334-6178 1000 Rio Brazos Road Aziec, NM 87410

District IV - (505) 827-7131

Energy Minerals and Natural Resources Department

Oil Conservation Division 2040 South Pacheco Street (505) 827-7131

RECEIVED

Submit Ori Plus I (

rorm U-.

Originated &

Santa Fe, New Mexico 87505 to approp MAR 18 2003 Environmental Bureau Of Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facilit
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.	
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
The following MSDS sheets are for Halliburton's Hobbs facility waste cement. This waste is generated when the generator mixes up cement for an oilfield cement job and some cement is left over. It is them put into a truck for holding until disposal. I have attached a certificate of waste status and MSDS on all of the cement types used by this facility. Sundance would like approval to accept this material into our disposal. Please reference last approval dated [23]-02 for msDS in the msDS in th	
Estimated Volume 400 Frons cy Known Volume (to be entered by the operator at the end of the haul) ————————————————————————————————————	
SIGNATURE: OFFICE	MGR DATE: 3-11-03
TYPE OR PRINT NAME: DONNA L. ROACHH TEL	EPHONE NO. 505-394-2511
(This space for State Use)	
APPROVED BY: SUNCHINE TITLE EN JEO :	ENGR DATE: 3/14/03
APPROVED BY Party This - TITLE Env. volume	1. 600/03 DATE: 3/10/03

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR: <u>Halliburton Energy Services</u>		
ADDRESS: 5801 Lovington Hwy		
GENERATING SITE: Hobbs Yard		
	COUNTY Lea STATE NM	
TYPE OF WASTE:Ce	ment	
ESTIMATED VOLUME:	1,000, sacks	
GENERATING PROCESS:	Unused cement	
REMARKS:		
NMOCD FACILITY:	Sundance	
TRUCKING FACILITY:	Halliburton	
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous of listed waste" pursuant to the provisions of 40 CFR, Part 261, subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.		
AGENT:	AIGNATURE SIGNATURE	
NAME:	Harvey Price PRINTED	
ADDRESS: 5801 Lovington Hwy		
DATE:	<u>3/6/2003</u>	

District II · (505) 748-1283 811 S. First Artesia, NM 88210

District III - (505) 334-6178 1000 Rio Frazos Road Aztec, NM 87410 District IV - (505) 827-7131

Oil Conservation Dinion 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

Submit O Plus J to appro District

Originated

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

	5 t
1. RCRA Exempt: Non-Exempt: X	4. Generator HALLIBURTON
Verbal Approval Received: Yes No No	5. Originating Site HOBBS FACIL
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter CHAPARRAL
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovinto	n HWy Hobbs, NM 88240
9 Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accommodately acceptation. B. All requests for approval to accept non-exempt wastes must be accommodately acceptately and the Generator's certification listing or testing will be approved.	ompanied by necessary chemical analysis i
All transporters must certify the wastes delivered are only those consigned	for transport.
BRIEF DESCRIPTION OF MATERIAL:	
The following waste is generated by the washing o	of tools and oil
equipment. This analytical is from Halliburtons	Hobbs facility.
Sundance would like approval to acppet this waste	into our Parabo facility.
	·
Estimated Volume300_bbls cy Known Volume (to be entered by the op	erator at the end of the haul)
SIGNATURE: Wasse Management Facility Authorized Agent Wasse Management Facility Authorized Agent	
TYPE OR PRINT NAME: DONNA L. ROACHH TEL	EPHONE NO
	<u> </u>
(This space for State Use)	
APPROVED BY DIK Johnson TITLE ENVIRO	ENGR DATE: 3/6/03 8
APPROVED BY: Montagen The TITLE: Environment	

11 #

事事·建筑者: 高端第一十十十十二十二十二二二二二二二二二二二二二二二二二二二二二二二二二二二二二	9/2/
The state of the s	
CERTIFICATE OF WASTE STATUS	
NON-EXEMPT WASTE MATERIAL	
AS REQUIRED BY New Mexico CONSERVATION DIVISION	
通 http://doi.org/10.11	
COMPANY/GENERATOR: Halliburton	E.
the state of the s	直腦
ADDRESS: 5801 Lovington Hwy	
a a silili i i i i i i i i i i i i i i i i	
GENERATING SITE: Hobbs Yard	
COUNTY Lea STATE NN	1
Kilvers 1	
TYPE OF WASTE: Wash Rack Grit	
	事,
ESTIMATED VOLUME: 300,000 lbs.	
GENERATING PROCESS: Wash Rack Sumps	
The state of the s	F * ***
REMARKS	
NMOCD FACILITY: Sundance	
The state of the s	
TRUCKING FACILITY: Chaparral	4
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 regulatory Determination.	PAGE.
10 my knowledge, this waste will be analyzed pursuant to the provisions of 40 CEP Part 261 to	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
verify the nature as non-hazardous. I further certify that to my knowledge "hazardous of listed"	
waste" pursuant to the provisions of 40 CFR, Part 261, subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "pazardous waste" pursuant to the	
provisions of 40 CFR, Sections 2613/	
	-01 19
AGENT	7.4
NAME: Harvey Price	
PRINTED	
ADDRESS: 5801 Lovington Hwy Hobbs, NM 88240	
	5.5
manufactured and the month of the second	\$ - \$ 100 miles

THE CONTRACTOR OF THE PROPERTY AND THE PROPERTY OF THE PROPERT

台灣縣 第四十八年 日本 海州



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02
Reporting Date: 02/27/02
Project Number: NOT GIVEN
Project Name: SUMP ANALYSES
Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/25/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	< 0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	< 0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	< 0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.018	0.018	0.103	103	0.100

	% RECOVERY	
Dibromofluoromethane	103	
Toluene-d8	99	1.00
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311

2/27/02

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.

Í	2111 Beechwood, Abilene, TX 79603	Abilene, TX 7960		101 East Marland, Hobbs, NM 88240	0	
Company Name:	(415) 6/3-/UU1 FA	915) 6/3-/001 Fax (915) 6/3-/020	(20) 353-2320 FAX (505) 353-2470	IX (505) 353-2470		ANALYSIS REQUEST
Project Manager:	0410 CO	E) Po#:		- 1
Address: 580)	Lochrato	7466	Company:	The transfer of the second control of the se		
City: HODB	State:)][17 210: 8834	Attn:			
TO (Address:		P	
Fax #:			City:			
Project#:	∩\\ Project Owner:	wner:	State:	Zip:	T	
Project Name:	SOO DOG	ALUSES	Phone #:			
Project Location:	HODDOS Y	ACTS.	Fax #:		8.	
FOR LAB USE ONLY			MATRIX PRES.	SAMPLING	<u>Q</u>	
		RS TER			NPL	
LAB I.D.	Sample I.D.	(G)RAB OR (C # CONTAINE GROUNDWA WASTEWATE	SOIL OIL SLUDGE OTHER: ACID: ICE/COOL OTHER:	DATE TIME	Car TP	
H6538-1	1.000.0001			180 50 00C	7	
Q	F. INASHBAUSUM	Sump	5	- U.S.	7	
3 -3	METCHERICETER	STIP OTHER	2	10 P	(
1.3	CO. 130 - 15 - 15 - 15 - 15 - 15 - 15 - 15 - 1					
	10 KE 10 C	3				
PLEASE NOTE: Liability and Dan analyses. All dains including thos	rages. Cardners lability and elemis: e for negligence and any other cause	acclusive remedy for any claim a whateoever shall be deemed wi	PLEASE NOTE: Liabity and Danages. Cardner's alldity and alert's excharte remark for any dulin artising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. At define including those for negligance and any other cause whatscover shall be deemed walved unless made in writing and received by Cardnel within 30 days after completion of the applicable	hal be limited to the amount paid by I by Cardinal within 30 days after oc	the client for the applicable	Terms and Conditions: interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of involce,
service. In no event shall Cardinal effiliates or suppessors arising out	sandos. In no evert shall Cardinal be fable for incidental or consequental damages, including without limitation, business into gilliates or suppossors arising out of or related to the performance of sendoss horsunder by Cardinal, inguitiess of whether	al damages, including without in envices hereunder by Cardinal, n	sandos. In no evert shall Cardinal be flatte for incidental or consequental damages, including without limitation, pustness interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, splitting or suppossors arising out of or related to the performance of services horsunder by Cardinal Ingardess of whether such claim is based upon any of the above stated respons or otherwise.	inutions, loss of use, or loss of profile knowned by client, its subsidiaries such claim is based upon any of the above distred ressorts or otherwise.		and at costs of collections, including attorney's fees.
Sampler Kelinguisn	900	me:	SAG DAY.	PEMARKS:		No
,		ime:		スロ祭年スス	<u> </u>	
Relinquished By:		are: 1 Rec	Received By: (Lab Stam)			
Delivered By: (C	(Circle One)	Sa	ole Condition C	HECKED BY:		
Sampler UPS - B	Bus - Other:		Tyes Tres	(initials)		

 [†] Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02
Reporting Date: 03/01/02
Project Number: NOT GIVEN

Project Name: SUMP ANALYSES
Project Location: HOBBS YARD

Analysis Date: 02/28/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER

SAMPLE ID

TPH (mg/Kg)

H6538-2	COMPOSITE OF E. & W.	2420
	WASHBAY SUMPS	
Quality Control		250
True Value QC		240
% Recovery		104
Relative Percent I	Difference	9.5

METHOD: EPA 418.1

Chemist



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES Project Location: HOBBS YARD

Lab Number: H6538-1

Sample ID: LOGGIN GRIT TRAP

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.030	60	0.050
o-Cresol	200	<0.050	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.050	<0.005	0.038	76	0.050
Hexachioroethane	3.00	<0.050	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.050	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.050	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	< 0.050	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	< 0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.050	<0.005	0.044	88	0.050

% RECOVERY

Fluorophenol	39
Phenol-d5	25
Nitrobenzene-d5	77
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	93
Terphenyl-d14	87

METHODS: EPA SW-846 1311, 8270, 3510

Burgess J. A. Cooke, Ph. D.

42103



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	< 0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.006	0.040	0.103	103	0.100

% RECOVERY

Dibromofluoromethane	106
Toluene-d8	113
Bromofluorobenzene	108

METHODS: EPA SW 846-8260, 1311

ss J. A. Cooke, Ph. D.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.020	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	< 0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	< 0.020	< 0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.020	< 0.005	0.044	88	0.050

% RECOVERY

	70 NEGG (E)(1
Fluorophenol	49
Phenol-d5	37
Nitrobenzene-d5	67
2-Fluorobiphenyl	67
2,4,6-Tribromophenol	67
Terphenyl-d14	66

METHODS: EPA SW-846 1311, 8270, 3510

Date

PLEASE NOTE: Liability and Damages Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS,NM 88240

Receiving Date: 02/22/02

Reporting Date: 03/01/02

Project Number: NOT GIVEN
Project Name: SUMP ANALYSIS
Project Location: HOBBS, NM

FAX TO:

Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER

#2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

REACTIVITY

LAB NUMBE SAMPLE ID	Sulfide	Cyanide	CORROSIVITY	IGNITABILITY
	(ppm)	(ppm)	(pH)	(°F)

ANALYSIS	DATE:	02/27/02	02/27/02	02/27/02	02/28/02
H6538-1	LOGGING GRIT T	RAF Not reactive	Not reactive	7.47	>140
H6538-2	COMP. EAST &	Not reactive	Not reactive	10.4	Nonflammable
• 1	WEST WASHBAY		1		·
	SUMPS				
			Company of the contract of the		
Quality Co	ntrol	NR NR	NR	7.08	NR
True Value	QC	NR	NR	7.00	NR
% Recover	У	NR	NR	101	NR
Relative Po	ercent Difference	NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSIS Project Location: HOBBS, NM Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER #2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO. SAMPLE ID		As	Ag	Ва	Cd	Cr	Pb	Hg	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
ANALYSIS	DATE:	02/27/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	02/28/02
EPA LIMIT	S:	5	5	100	1	5	5	0.2	1
H6538-1	LOGGING GRIT TRAP	<1	<1	<5	<0.1	<1	<1	< 0.02	<0.1
H6538-2	COMP. EAST &	<1	<1	<5	<0.1	<1	<1	< 0.02	<0.1
	WEST WASHBAY SUMPS								
			,						
Quality Cor	ntrol	0.150	4.601	21.62	0.976	4.634	4.380	0.00662	0.156
True Value	QC	0.150	5.000	25.00	1.000	5.000	5.000	0.00600	0.150
% Recover	y .	100	92.0	86.5	97.6	92.7	87.6	110	104
Relative Sta	andard Deviation	0.7	0.2	3.3	0.1	0.6	0.1	10.3	1.6
METHODS	: EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill, Chemist

<u>5 |-0 2-</u>



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02

Reporting Date: 03/01/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02

Sampling Date: 02/22/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER

SAMPLE ID

TPH (mg/L)

H6538-1	LOGGIN GRIT TRAP	1490
		-
Quality Control		9.67
True Value QC		10.0
% Recovery		96.7
Relative Percen	t Difference	0.8

METHOD: EPA 418.1

Chemisti

HODDS, NM 88241-1980 811 S. First Artesia, NM 88210 District III - (505) 334-6178 1-000 Rio Brazos Road

District IV - (505) 827-7131

Aztec, NM 87410

Energy Minerals and Natural P-sources Department Oil Conservation Division 2040 South Pacheco Street

Santa Fe, New Mexico 87505 (505) 827-7131

Submi Pli to ar

Originat

Disti

REQUEST FOR APPROV	ALTO ACCEPTS	SOLID WASTE	
1. RCRA Exempt: Non-Exempt: 🔀		4. Generator	HALLIBURTON,
Verbal Approval Received: Yes No	· •	5. Originating	Site HOBBS FACI
2. Management Facility Destination SUNDANCE SER	VICES INC.	6. Transporter	UNKNOWN
3. Address of Facility Operator P.O. BOX 1737	Eunice NM 88	2318. State NEW	MEXICO
7. Location of Material (Street Address or ULSTR)	5801 LOVING	TON, hyHOBBS,	N.M. 88240
9. <u>Circle One</u> :			
A. All requests for approval to accept oilfield exem Generator; one certificate per job. B. All requests for approval to accept non-exemping PROVE the material is not-hazardous and the Colisting or testing will be approved.	wastes must be according to the contraction wastes wastes must be according to the contraction wastes wastes and the contraction wastes wastes and the contraction wastes wastes and the contraction wastes wastes according to the contraction wastes waste wastes waste wastes wastes wastes wastes waste wastes waste wastes waste wastes waste	ompanied by neces on of origin. No was	sary chemical analys:
All transporters must certify the wastes delivered are BRIEF DESCRIPTION OF MATERIAL:	only those consigned	l for transport.	
The attached MSDS is for sand This material begomes a waste when frac jobs.Sundance would like approx Parabo Disposal Facility. Note: This is an ongoing waste See last approval on 3-25-02	e stream.	al left over this material	into our
Estimated Volume 200 vds cy Known Volume	to be entered by the op	erator at the end of th	ne haul) —————
SIGNATURE: Waste Management Facility Authorized Agent TYPE OR PRINT NAME: DONNA L. ROACHH	TTTLE: OFFICE		DATE: <u>2-24-23</u> 05-394-2511
(This space for State Use)			
APPROVED BE THE Johnson	TITLE: ENGR-G	n) (Iso	DATE: 3-6-03
APPROVED BY: Martyne John	TITLE: Environment	La / beologist	DATE: 3-/0-03

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL AS REQUIRED BY New Mexico CONSERVATION DIVISION

	•	1.
COMPANY/GENERATOR:	<u>HES</u>	Section 1995
ADDRESS: 5801 Lc	vington Hwy Hobbs, NM	
GENERATING SITE:	HES	
COUNTY <u>Lea</u> STA	ATE_NM_	
TYPE OF WASTE: 160 SA	CKS OF 16/30 SB EXCEL &	55 SACKS OF
20/40/INTERPROP (SAND)		
ESTIMATED VOLUME: APP	ROXIMATELY 21,500 LBS	TOTAL
GENERATING PROCESS:	Unused on job	
REMARKS:		
REMARKS.		
NMOCD FACILITY:	Sundance	
TRUCKING FACILITY:	Hes	
as defined by the Environmental Prot To my knowledge, this waste will be verify the nature as non-hazardous. I waste" pursuant to the provisions of 4 mixed with the waste so as to make th provisions of 40 CFR, Sections 2613 AGENT: NAME:	osal, I hereby certify that this waste is a no ection Agency's (EPA) July 1988 regulato analyzed pursuant to the provisions of 40 c further certify that to my knowledge "haza to CFR, Part 261, subparts C and D, has not be resultant mixture a "hazardous waste" provided the control of the con	ry Determination. CFR Part 261 to irdous of listed of been added or irsuant to the
DATE:	2/5/2003	

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

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

RECEIVED

Form C-138

Revised March 17, 1999

FEB 0 3 2003 Submit Original Plus 1 Copy Environmental Bureau to Appropriate District Office Cil Conservation Division

REQUEST FOR APPROVAL TO	ACCEPT SOLID WASTE

REQUEST FOR APPROVAL TO ACCEPT	SULID WASTE
L DCDA Franct	4. Generator Electric Submersible Pump
1. RCRA Exempt: Non-Exempt: No Verbal Approval Received: Yes No	5. Originating Site Hobbs Pump Yard
2. Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8426 N. Dal Paso Hobbs New Mexico 88241	
9. <u>Circle One</u> :	
 A. All requests for approval to accept oilfield exempt wastes will be accompanied by a connecertificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necess material is not-hazardous and the Generator's certification of origin. No waste classification approved 	sary chemical analysis to PROVE the
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
of waste status and chain of custody. Sundance would like approval to accept this material int	o our Parabo Disposal Facility.
Estimated Volume 240 cy Known Volume (to be entered by the operation)	tor at the end of the haul)cy
Waste Management Facility Authorized Agent TITLE: President	DATE: <u>1-9-03</u>
TYPE OR PRINT NAME: Donna Roach TELEPHONE I	NO. <u>505-394-2511</u>
(This space for State Use)	
APPROVED BY: Many Sky. TITLE: Environment	GR DATE: 1-27-03
APPROVED BY: Next Ship TITLE: Environment	600/0915+ DATE: 2-3-03

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: ESP 8426 n DAL PASO HOBBS nm 88240

SOURCE:	OHFEID	RinsAtE	
P.O. Bo	ocation: <u>5</u> (\737 éur	unlanté ité n.m.	SERVICES PARABO FACILITY
	that this waste is Environmental! Determination. pursuant to the nature as non- knowledge no "I provisions of 40 added or mixed	Frotection Agen To my knowled provisions of 40 hazardous. I fur sezardous or list CFR, Part 261, with the waster dous waster pur \$1.3.	r disposal, I hearby certify waste as defined by the top's (HPA) July 1988 Regulatory life, this waste will be analyzed CFR Part 261 to verify the ther certify that to my ed waste pursuant to the Subparts C and D, has been to as to make the resultant estuant to the provisions of 40 Light Gloud ESP bject site.
		Name	Ramor Hinos
		Title/Angency	Est
	•	Address	Hobbs: new maxico
		Signature	Rangy Linda
		Date	1-9-03

CHAIN OF CUSTODY AND ANALYSIS REQUEST AMALYBES RECKEST 16992-Maria Padama ancorporato de Albanda ancorporato dos anto đ PATE 904 Ecoec Stearterts, Holdon, 68th 2623CB : WHU STREET (SEE TIME FAX (SEE) STREETS 1900 (80) P.D.R Namun BOOTING Cardinal cannot accord vertod abunges. Places by written changes to (816) 979-7928. 101 34.46 SHOW WO BARKED LE ARDINAL LABORATORIES, INC. 2111 Boothrood, Ablana, 1x 7863 (P48) 673-7004 Fax (P18) 673-7038 100 Propert Desert のまる Bermple LD. 16996-1 Leb LD. 7 4 1 K

S880H 10M! 1513

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ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02 Reporting Date: 09/04/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Sampling Date: 08/29/02 Sample Type: WASTEWATER Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	zA.	Ag	Ba	Cd	Cr	Pb	Hg	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
ANALYSIS	DATE:	09/03/02	09/04/02	09/04/02	09/04/02	09/04/02	08/04/02	09/04/02	09/03/02
EPA LIMITS	S:	5	5	100	1	5	5	0.2	1
H6992-1		<1	<1	<5_	<0.1	<1	<1	<0.02	<0.1
				1	-	-			
							-		
					 -				
		 .							-
<u></u>									
Quality Con	ntrol	0.049	4.935	48.29	0.956	4.972	5.040	0.0089	0.149
True Value		0.050)					
% Recover		98.0						i ———	99.3
	andard Deviation	1.6	-						
METHOOS	EPA 1311, 600/4-	91, 206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

Date

H6992

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366 IO 07

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS. NM 88240

ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02

Reporting Date: 09/03/02

Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Sampling Date: 08/29/02

Sample Type: WASTEWATER

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

REACTIVITY

LAB NO. SAMPLE ID

Sulfide (ppm)

Cyanide CORROSIVITY IGNITABILITY (ppm)

(pH)

(°F)

ANALYSIS DATE:	08/30/02	08/30/02	08/29/02	08/30/02
H6992-1 -	Not reactive	Not reactive	6.80	>140
				1
				<u> </u>
				
Quality Control	NR.	NR	7.04	NR.
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	101	NR
Relative Percent Difference	NR	NR	0.1	NR

METHOD: EPA SW-848 7.3, 7.2, 1010, 1311, 40 CFR 261



ANALYTICAL RESULTS FOR

ESP

ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240

FAX TO:

Receiving Date: 08/29/02

Reporting Date: 08/30/02

Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN

Lab Number: H6992-1

Sample ID: -

Analysis Date: 08/29/02

Sampling Date: 08/29/02

Sample Type: WASTEWATER

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6992-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.109	109	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.096	95	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.0841	84	0.100
Chloroform	6.0	<0.005	<0.005	0.087	87	0.100
1,2-Dichloroethane	0.5	<0.006	<0.005	0.090	90	0.100
Benzene	0.5	<0.005	<0.005	0.114	114	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.109	109	0.100
Trichloroethylene	0.5	< 0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.091	91	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1.4-Dichlorobenzene	7.5	< 0.005	<0.005	0.091	91	0.100

96	RF	CO	٧F	RΥ
~	110	\sim	Y =	$^{-}$

Dibromofluoromethane	95	
Toluene-d8	118	
Bromofluorobenzene	102	

METHODS: EPA SW 846-8260, 1311

Rumess J A Cooke Ph D



ANALYTICAL RESULTS FOR ESP ATTN: RANDY HINDS 8426 N. DAL PASO HOBBS, NM 88240 FAX TO:

Receiving Date: 08/29/02 Reporting Date: 08/30/02 Project Number: NOT GIVEN

Project Name: PUMP TESTING WATER

Project Location: NOT GIVEN Lab Number: H6992-1

Sample ID: -

Analysis Date: 08/29/02 Sampling Date: 08/29/02

Sample Type: WASTEWATER
Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6992-1	Method Blank		% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.005	0.041	82	0.050

Pyridine	5.00	<0.050	<0.005	0.041	82	0.050
1,4-Dichlorobenzene	7.50	<0.050	<0.005	0.033	66	0.050
o-Cresol	200	<0.060	<0.005	0.044	88	0.050
m, p-Cresol	200	<0.050	<0.005	0.041	82	0.050
Hexachloroethane	3.00	<0.050	<0.005	0.029	58	0.050
Nitrobenzene	2.00 !	<0.050	<0.005	0.044	88	0.050
Hexachloro-1,3-butadiene	0.500	<0.050	<0.005	0.033	68	0.050
2,4,6-Trichlorophenal	2.00	<0.050	<0.005	0.053	106	0.050
2,4,5-Trichlorophenol	400	<0.050	<0.005	0.052	104	0.050
2,4-Dinitrotoluene	0.130	< 0.050	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.050	<0.005	0.053	106	0.050
Pentachlorophenol	100	<0.050	<0.005	0.046	92	0.050

% RECOVERY

Fluorophenol	56
Phenol-d5	42
Nitrobenzene-d5	93
2-Fluorobiphenyl	88
2,4,6-Tribromophenol	112
Terphenyi-d14	74

METHODS: EPA SW-848 1311, 8270, 3510

Date

8/30k

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Hobbs, NM 88241-1980

District II - (505) 748-1283
811 S. First
Artesia, NM-88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410

District IV - (505) 827-7131

Energy Minerals and Natural Produces Department

Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

RECEIVED

FFR 0 3 2003 Environmental Bureau Submit (Plus to appi Distric

Originated

Oil Conservation Division
REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: Non-Exempt: X		4. Generator	HALLIBURTON ,
Verbal Approval Received: Yes No	<u> </u>	5. Originating S	ite HOBBS FACII
2. Management Facility Destination SUNDANCE SERV	ICES INC.	6. Transporter	UNKNOWN
3. Address of Facility Operator P.O. BOX 1737 E	unice NM 8823	318. State NEW	MEXICO
7. Location of Material (Street Address or ULSTR)	5801 LOVINGTO	ON hyHOBBS,	N.M. 88240
9. <u>Circle One</u> :			
A. All requests for approval to accept oilfield exemple Generator; one certificate per job. B. All requests for approval to accept non-exemptive PROVE the material is not-hazardous and the Gelisting or testing will be approved.	vastes must be accon	mpanied by necess:	ary chemical analysis
All transporters must certify the wastes delivered are o	nly those consigned for	for transport.	
BRIEF DESCRIPTION OF MATERIAL:			
The attached MSDS is for sand of this material begomes a waste when the frac jobs. Sundance would like approve Parabo Disposal Facility.	er is materia.	T Tett over 1	erom sand
Note: This is an ongoing waste Note: See msDs on last approval	stream. 3-25-02		
Estimated Volume 200 vds cy Known Volume (to	be entered by the oper	rator at the end of the	: haul) —————
SIGNATURE JONNE & OFORCE	TILE: OFFICE	MGR	DATE: 1-24-03
Wasse Management FacilityAuthorized Agent TYPE OR PRINT NAME: DONNA L. ROACHH	TELE		5-394-2511
(This space for State Use)			
APPROVED BY Showson	MILE ENVIREEN	NGR	DATE: 1/27/03
APPROVED BY Taly, My.	ITTLE: Environ north	1 6 cdosist	DATE: 2/3/63
			

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATO	DR: <u>HES</u>
ADDRESS:5	801 Lovington Hwy Hobbs, NM
GENERATING SITE:	HES
COUNTY Lea	STATE <u>NM</u>
TYPE OF WASTE:	Resin Coated Sand
ESTIMATED VOLUME:	20,000 lbs.
GENERATING PROCES	S: <u>Unused on job</u>
REMARKS:	
NMOCD FACILITY:	Sundance
TRUCKING FACILITY:	Hes
as defined by the Environm To my knowledge, this was verify the nature as non-haz waste" pursuant to the prov	· / // ^
DATE:	1/24/2003

JAN-22-03 15:56 From:8152218

T-966 P.01 Job-647

FOR! MARTUNE KIELING

Lacey, Con you please

Can get a Verbal. They are Checking on a discharge plant

15053939758

- JAN-22-03 15:56 From:8152219

Artesia, NM 88210 <u>District III</u> · (505) 334-6178 1000 Rio Brazos Road Azue, NM 87410 <u>District IV</u> · (505) 827-7131

Oll Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

Submit (Plusto appr Duurict

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
! RCRA Exempt: Non-Exempt: X	4. Generator Permian Mack
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facil
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Maclaskey
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 2121 W West Co.	nty Road Hobbs, NM 88240
9 Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accept oilfield exempt wastes will be accept money and the Generator's certificate per job. B. All requests for approval to accept non-exempt wastes must be accept non-exempt wastes will be accept non-exempt wastes must be accept non-exempt non-exe	companied by necessary chemical analysis t
All transporters must certify the wastes delivered are only those consigne	d for transport.
BRIEF DESCRIPTION OF MATERIAL:	
The following analytical results are frofacility. This waste was generated by the shop tools into the grit trap. I have i waste status and chain of custody. Sund to accept this material into our Parabo	he washing of trucks and ncluded ancertificate of ance would like approval
Note: Waste stream has not changed sinc Generator is in the process of ru	
Estimated Volume 200 hhls ey Known Volume (to be entered by the o	perator at the end of the haul) cy
SIGNATURE: / John & Ocial TITLE: OFFICE	MGR DATE
DONNA T. BOXOUS	LEPHONE NO. 505-394-2511
	n
(This space for State Use)	
APPROVED BY TOK Column TITLE: ENTROE	NGR DATE:
APPROVED BY: Martyn Jhy TITLE. Environm	mh Geologist DATE: 1-22-03

:,

Post-It' Fex Note

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINA	MINGLOCATION: Termian MACK SALE
SOURCE	2121 WEST COUNTY Ld Hobbs
DISPOSA	LLOCATION: SUNDANCE SERVICES INC.
T' cpe a	As a condition of acceptance for disposal, I hearby carrify that this waste is a non-emempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CPR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CPR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CPR, Section 2613. CPR, Section 2613. Mams CANA July 1888 Regulatory that this waste waste waste waste waste "pursuant to the provisions of 40 CPR, Section 2613. Name
	Tille/Angency Servico MAMAYER
	Address 2121 WGST County DI
	TOBBS N.W.
	Signature
	Date 1-20-2003



PHONE (816) STRUTCH - 2111 REPECHANCO - ASK SIGE. TX 70000 PHONE (808) 363-8388 - 191 B. MARLAND - MORES, NM 87240

ANALYTICAL REBUILTS FOR PERMIAN MACK SALES OF NM, INC. ATTN: RANDY P.O. BOX 1678 HOBBS, NM 68240

Reporting Date: 09/07/00 Reporting Date: 09/14/00

: 'A f :

: .

Project Demer: NOT GIVEN
Project Neme: NOT GIVEN
Project Lection: NOT GIVEN

Sampling Date: 09/07/00 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: GF Analyzad By: BC/AH

REACTIVITY

•		7550.//	 				
	LAB NUMBER	SAMPLE ID	 	Suffice	Cyanice	CORROSIVITY	IGNITABILITY-
	1:9~2:0:99 67:13			Girth (Colon)	(maq)	. (pH1)	ሮም

FAX TO:

ANALYSIS DATE!	9/12/00	9/12/00	9/13/00	9/13/00
ANALYSIS DATE!! HS180-1 GRIT TRAP	Not reactive	Not reactive	6.80	>140
				
	2 EUZ.,			
				
Quality Control	. NR	NR	8.99	NR
True Velue QC	NR	NR NR	7.60	NR
% Recevery	NR	NR	60.0	NR
Relative Percent Difference	NR	NR	- 0	NR

METHOD: EPA 8W 848-7.3, 7.2, 1010, 1311, 40 CFR 261

Surjes of a Cooke

9/V+/ac

PLEASE LOGITIS. Logiting and Digitization. Conclusing that specify the state of the property o



PHONE (818) 173-7001 - 2111 RESCHMOOD - ABILENE, TX 79003 PHONE (804) 383-2328 - 101 E MARLAND - HOSBS, NM REDGO

ANALYTICAL REBULTS FOR PERMIAN MACK SALES OF NM, INC./ ATTN: RANDY P.O. SOX 1676 HOSBS, NM 88240 FAX.TO;

Repairing Date: 08/07/00
Reparting Date: 08/14/00
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Lossifiet NOT GIVEN

Sempling Date: 09/07/00 Sample Type: \$640000.

Sample Condition: COOL & INTACT

Barrete Received By: GP

Analyzed By: AH

TCLP METALS

AB NO. SAMPLE ID	M RCLASK 84		Be	Çd	CT	Pb	Hg	**
:	ppm	. ppm	Ship	.ppm	bbtti	2010	क्रम्परा	, ppm
WALYSIS DATE	58/11/00	00/11/00	08417/00	00/11/00	69/11/00	SOCIAL ING		09/14/00
EPA LIMITE:	6	5	100		. 6	5	0.2	•
#160-1 GRIT TRAP	41	- <1	4	40.	A	<1	<0:02	<0. ¹
			4764					
Company S. S.								
·								
Juality Control	0.056	4.552	24.63	0.849	5.273	6.182	0,0106	0.218
(rea Velue QC	0.060				6.000	6.000	0.0100	0.20
A Recovery	110			94.0	105	104	106	100
teletive Standard Deviation	2.3	0.5	1.3	0.4	2.4	0.1	13.2	5.4
METHODS: EPA 1391, 800/4-91/	200.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill

....

e 100 mg ∰1,100 m 1 - 1 - 10 g 9-14-00

W. 60 YO. 10

PLEASE NOTE: Stability and intermedia to make state stables and the control of the stables of the product of the transfer of the amount with by observe and the desired value in the product of the produ



PHONE (915) 473-7301 - 2111 SEECHWOOD - ABILDIE, TX 78603

PHORE (809) 973-2224 - 101 E. MARLAND - HORES, NM 82240

ANALYTICAL RESULTS FOR PERMIAN MACK SALES OF NM, INC. ATTN: RANDY P.O. 90X 1678 HOBBS, NM 88240 FAX TO:

Receiving Date: 09/07/00 : Reporting Date: 09/14/09 Project Owner: NOT GIVEN Project Name: NOT GIVEN Project Location: NOT GIVEN

- Lab Member: Terren.1 I Sample ID: GRIT TRAP

Analysis Date: 09/13/00 Gempling Date: 00/07/00 Semple Type: SLUDGE

Semple Condition: COOL & INTACT

Sample Received By. GP

Analyzad By: BC

the of deligning py () and the contract of the party of the contract of the c	EPA : \$	emple Result	Memod			True Value
TCLP BENIVOLATILES (ppr	n) LIMST	⊬8160-1 ⊬″≇⊄⊊Y	Blank	QC	W Ricov.	dc
Pyrishia	6.00	€0.020 °	ව.005	0.020	40	0.050
1,4-Cohioronarcione	7.50	0.026	<0.008	0.030	60	0.050
o-Cross	200	€0,020	⊲7.006	0.020	60	0.060
m, p-Cresol	200	0.023	₹0.005	0.031	62	0.060
Manachlorosthene	3.00	<0.020	<0.005	0.026	52	0.050
Nitrobanzana	2.00	40.020	<0.005	0.030	60	0.060
Neschlory-1,3 butes and	0.500	<0.020	<0.008	0.031	ĠZ	9,000
2,4,6-Yrichterophenol	2.00	≪0.020	€0.00\$	0.047	96	0.050
2,4,5-Tristicrophenol	400	<0.020	40.00s	0,044	ės.	0.050
2.4-Omkrosowene	0.130	€:020	<0.005	0.043	865	0.060
Hestorioreasnone	0.130	<0.020	<0.005	0.045	90	0.050
Pentaghlorophenol	100	<0.020	<0.006	0.041	82	0.050

<u>-</u>	% RECOVERY
Fruorophenot	53
Phermi-d3	57
Nitrobenzono d5	77
2-bitcombightoryl	65
2.4.6-Tribromophono	83
Terphanyo-614	97

METHODS: EPA SW 849-8270, 1311, 3510

, **i**., . .



PHONE (918) 973-7001 · 2(1) BETCHINOCO · ASH, SHE TX 76603

PHONE (606) 383-2726 - 101 E. MARLAND - HOSBS, NM 96340

ANALYTICAL RESULTS FOR PERMIAN MACK SALES OF NW. INC. ATTN: RANDY P.O. BOX 1678 HORBS, NM 88240 FAX TO:

Receiving Date: 09/07/00 Reporting Date: 09/11/00 Project Owner: NOT GIVEN Project Neme: NOT GIVEN Project Location: NOT GIVEN Analysia Date: 08/08/00 Sempling Date: 08/07/00

Sample Type: SLUDGE Sample Consisten: COOL & INTACT

Semple Received By All Amiyzed By - BC

Semple ID: GRIT TRAP

. The employed to an entrance manage days which	" EPA 9	emple Result "	" 'Method' '	1 fee		True Value
TCLP-VOLATILES (ppm):	LIMITACL	15K ±15160-1	Blank,	dc	%Recov.	Q¢
Vinyi Chlorida	0.20	<0,006	<0.00€	0.087	87	0.100
1,1-Ochlerostrytene	0.7	<0,005	≪0.005	0.102	102	0,100
Monyl Ethyl Ketone	200	0.113	<0.080	0.100	109	0.100
Chloreform	8.0	<0.005	40.00€	0.104	104	0.100
1,2-Dichtoroothene	0.5	≪0.005	<0.006	0.114	114	0,100
Banzona	0.5	€0.006	.≪2.008	0.108	103	0.100
Ogreen Tetrachleride	0,5	€0.003	<0.005	0.108	105	0.100
Trichlorostinylong	0.5	<0.005	<0.005	0,109	109	0.100
Totackiorocitylene	0.7	- 0.011	<0.008	0.108	105	0,100
Chlorobongene	100	<0.008	<0.006	0.106	106	0.100
1,4-Dichlerobenzens	75	<0.005	<0.005	0.111	111	0.100

<u></u>	# RECOVERY
Digramaticoromethene	96
Volume de	98
Bromafiuorobenzene · ····	98

METHODE: EPA RW \$45-8260, 1911

K****	****	*****	**************	****	*****	************************************	******* P. O	
			TRANSACTION	REPORT	_	JAN-22-2003 I	WED 03:48	B PM
I	FOR:							
RI	ECE I VE						Nation .	
DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
JAN-2	2 03:45	PM 15053939758	2′ 18″	8	RECEIVE	OK		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-138 Revised March 17, 1999

> Submit Original Plus 1 Copy to Appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT	T SOLID WASTE
	4. Generator Halliburton Energy Services
1. RCRA Exempt: ☐ Non-Exempt: ☐ Verbal Approval Received: Yes ☑ No ☐ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	5. Originating Site Artesia Facility
2. Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2311 South First, Artesia, NM 88210	
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certif	fication of waste from the Generator;
one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary material is not-hazardous and the Generator's certification of origin. No waste classified approved	
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
Sundance request to accept waste cement generated at Halliburton's Artesia Yard. This an oilfield cement job and some cement is left over. It is then put into a truck for holding this facility. Please reference Halliburton's Hobbs Yard for junk cement for documental descriptions. The sum of the s	ng until disposal. I have attached a certificate of waste for tion that was last approved on 04/30/02.
SIGNATURE A Me Bach TITLE: President	
SIGNATURE Waste Management Facility Authorized Agent TITLE: President	
TYPE OR PRINT NAME: Donna Roach TELEPHONE NO.	505-394-2511
(This space for State Use)	
	DATE: \2/02/02
	logist DATE:01-07-03

District I 1625 N. French Dr., Hobbs, NM 88240 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

Estimated Volume

State of New Mexico Energy Minerals and Natural Resources

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

Form C-138 Revised March 17, 1999

Submit Original Plus 1 Copy to Appropriate District Office

REQUEST FOR APPROVAL TO ACCES	PT SOLID WASTE
1. RCRA Exempt: ☐ Non-Exempt: ☐ ✓	4. Generator Halliburton Energy Services
RCRA Exempt: Non-Exempt: Verbal Approval Received: Yes No No WINK IN 15 02	5. Originating Site Artesia Facility
2. Management Facility Destination Sundance Services Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 1737 Eunice NM 88231	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2311 South First, Artesia, NM 88210	
9. Circle One:	
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certi one certificate per job.	
B. All requests for approval to accept non-exempt wastes must be accompanied by necessar material is not-hazardous and the Generator's certification of origin. No waste classified approved	y chemical analysis to PROVE the hazardous by listing or testing will be
All transporters must certify the wastes delivered are only those consigned for transport.	
BRIEF DESCRIPTION OF MATERIAL:	
Sundance request to accept waste cement generated at Halliburton's Artesia Yard. This an oilfield cement job and some cement is left over. It is then put into a truck for holding this facility. Please reference Halliburton's Hobbs Yard for junk cement for documentations.	ng until disposal. I have attached a certificate of waste for

Estimated Volume 175 tons cy Known Vol	lume (to be entered by the operator at	the end of the haul)cy
SIGNATURE Waste Management Facility Authorized Agen	TITLE: <u>President</u>	DATE: _11/15/02
TYPE OR PRINT NAME:	TELEPHONE N	NO <u>505-394-2511</u>
(This space for State Use)	Automorphisms — Automorphisms	
APPROVED BY: Maty 321.	TITLE: Environment	4 1 6 e olyis DATE: 11 /15/02
APPROVED BY:	TITLE:	DATE:

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL "AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR: Halliburton Energy Services

ADDRESS: 2311 South First, Artesia, NM 88210

GENERATING SITE: Halliburton Energy Services, 2311 South First, Artesia, NM 88210

COUNTY: Eddy

STATE: New Mexico

TYPE OF WASTE: Un-used Cement Returned from Location

ESTIMATED VOLUME: 30,000lbs/month

GENERATING PROCESS: Cement is loaded into bulk equipment and delivered to job site. After completion of job, bulk equipment returns to facility and blows Un-used cement back into Waste Cement Tank.

REMARKS: Cement and additives are the same as our Halliburton Facility located in Hobbs, NM at 5801 Lovington Hwy.

NMOCD FACILITY:

TRUCKING COMPANY: CX Transportation

As a c condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection agency's EPA July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant of the provisions of 40 CFR Part 261 to verify the nature as Non-Hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subpart C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613>

NAME: STEPHEN W. BAILEY Stephen W. Boiley

ADDRESS: 5801 LOVINGTON HWY, HOBBS, NM 88240

DATE: 11-14-02

...... 14171 00441-1980 District II - (505) 748-1283 811 6. First Arresia, NM 88210 <u>Fistrict III</u> - (505) 334-6178 7000 Rio Brazos Road Aztec, NM 87410

Energy Minerals and Natural Resources Department

Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

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<u>धानंत IV</u> - (505) 827-7131	Environmental Bureau Oil Consequation Division
REQUEST FOR APPROVAL T	O ACCEPT SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes 🔲 No 🔲	5. Originating Site Hobbs Facili
2. Management Facility Destination SUNDANCE SERVICE	S INC. 6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Euni	ce NM 882318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801	Lovington Hwy, Hobbs, NM 88240
9. <u>Circle One</u> :	
Generator; one certificate per job. B. All requests for approval to accept non-exempt waste	tes will be accompanied by a certification of waste from the smust be accompanied by necessary chemical analysis to or's certification of origin. No waste classified hazardous by
All transporters must certify the wastes delivered are only the	nose consigned for transport.
cement. This waste is generate for an oilfield cement job and	MSDS on all of the cement types used
Fairmand Volume 400 Fons - Known Volume (ashare	
Estimated Volume (to be en	ntered by the operator at the end of the haul) cy
SIGNATURE: Waste Management Facility Authorized Agent	OFFICE MGR DATE: 4-30-02
TYPE OR PRINT NAME: DONNA L. ROACHH	TELEPHONE NO. 505-394-2511
(This space for State Use)	
Legger and the D	ENIED GOOD DATE: 5/7/02
APPROVED BY: Morting of the TITLE	Environmental Geologist DATE: 5/13/02

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATOR:	Halliburton Energy Services
ADDRESS: 5801 Lovingto	n H w y
GENERATING SITE:	Hobbs Yard
	COUNTY Lea STATE NM
TYPE OF WASTE:	Cement
ESTIMATED VOLUME:	1,000, sacks
GENERATING PROCESS: _	Unused cement
REMARKS:	<u> </u>
NMOCD FACILITY:	Sundance
TRUCKING FACILITY:	Halliburton
as defined by the Environmental P To my knowledge, this waste wiff verify the nature as non-hazardous waste" pursuant to the provisions of mixed with the waste so as to make provisions of 40 CFR, Sections 26 AGENT: NAME: Harve	isposal, I hereby certify that this waste is a non-exempt waste rotection Agency's (EPA) July 1988 regulatory Determination. be analyzed pursuant to the provisions of 40 CFR Part 261 to . I further certify that to my knowledge "hazardous of listed of 40 CFR, Part 261, subparts C and D, has not been added or e the resultant mixture a "hazardous waste" pursuant to the 13. SIGNATURE EY Price PRINTED
ADDRESS:	5801 Lovington Hwy
DATE	4/30/2002

District II - (505) 748-1283 81-1 S. First

Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505 (505) 827-7131

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Submit Or Plus I to approp

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NOV 2 6 2001

Artesia, NM 88210

District III - (505) 334-6178
1000 Rio Brazos Road Aztec, NM 87410 District IV - (505) 827-7131

Environmental Bureau

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facili
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
 9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. All transporters must certify the wastes delivered are only those consigned. 	companied by necessary chemical analysis to on of origin. No waste classified hazardous by
BRIEF DESCRIPTION OF MATERIAL:	ior dansport.
The following MSDS sheets are for Hallibar cement. This waste is generated when the for an oilfield cement job and some cement into a truck for holding until dispondentificate of waste status and MSDS on by this facility. Sundance would like a material into our disposal.	nt is left over. It is them sal. I have attached a sall of the cement types used
SIGNATURE: Waste Management Facility Authorized Agent TYPE OR PRINT NAME: DONNA L. ROACHH TEI	
APPROVED BY: Marty John TITLE: Environment	

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GENERATO	R: <u>Halliburton Energy Services</u>
ADDRESS:5801 Lovi	ngton Hey
GENERATING SITE:	Hobbs Yard
	COUNTY Lea STATE NM
TYPE OF WASTE:	Cement
ESTIMATED, VOLUME:	1,000, sacks
GENERATING PROCESS	S:Unused cement
DEM A R K S	·
REWARKS.	
NMOCD FACILITY:	Sundance
TRUCKING FACILITY:	Halliburton
as defined by the Environme To my knowledge, this wast verify the nature as non-haza waste" pursuant to the provi	e for disposal, I hereby certify that this waste is a non-exempt waste ental Protection Agency's (EPA) July 1988 regulatory Determination. e will be analyzed pursuant to the provisions of 40 CPR Part 261 to ardous. I further certify that to my knowledge "hazardous of listed sions of 40 CFR, Part 261, subparts C and D, has not been added or to make the resultant mixture a "hazardous waste" pursuant to the lons 2613.
AGENT:	SIGNATURE
NAME:	Eddie Hopper
ADDRESS:	PRINTED 5801 Lovington Hwy
DATE:	8/28/2001

District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Frazos Road
Aztec, NM 87410
District IV - (505) 827-7131

Oil Conservation Dission 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

Submit Ori Plus I (to approp District C

<u>img 14</u> · (303) 827-7131	Y 4
REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1 RCRA Exempt: Non-Exempt: X	4. Generator HALLIBURTON
Verbal Approval Received: Yes No No	5. Originating Site HOBBS FACILI
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter CHAPARRAL
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovinto	n HWy Hobbs, NM 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	companied by necessary chemical analysis to
All transporters must certify the wastes delivered are only those consigned	d for transport.
BRIEF DESCRIPTION OF MATERIAL:	
The following waste is generated by the washing of	of tools and oil
equipment. This analytical is from Halliburtons	Hobbs facility.
Sundance would like approval to acppet this waste	e into our Parabo facility.
Estimated Volume 300 bbls cy Known Volume (to be entered by the o	perator at the end of the haul)
SIGNATURE: Waste Management Facility Authorized Agent Waste Management Facility Authorized Agent	E MGR DATE: 12-31-08
DOMNA I POACHY	LEPHONE NO
(This space for State Use)	
APPROVED BY: The following TITLE: ENVIRE &	ENGIR DATE: 16/03
APPROVED BY Morty My TITLE Suringman	ah Geologist DATE: 1/10/03

and the second second second

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GI	ENERAT(OR: <u>Halliburton</u>
ADDRESS: _	580	1 Lovington Hwy
GENERATING	SITE: _	Hobbs Yard
		COUNTY Lea STATE NM
TYPE OF WAS	STE:	Wash Rack Grit
ESTIMATED V	VOLUME	: 300,000 lbs.
GENERATING	PROCES	SS: <u>Wash Rack Sumps</u>
REMARKS:		
NMOCD FACI	LITY: _	Sundance
TRUCKING FA	ACILITY:	Chaparral
as defined by To my know verify the na waste" pursu mixed with t	the Environmed the the thick the thick the thick the the the promote the the promote the the the the the the the the the t	
AC	GENT:	SIGNATURE
	AME:	Harvey Price PRINTED
ΛI	DDRESS:	5801 Lovington Hwy Hobbs, NM 88240
D.	\TT.	12/21/2002



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS,NM 88240

Receiving Date: 02/22/02

Reporting Date: 03/01/02

Project Number: NOT GIVEN Project Name: SUMP ANALYSIS

Project Location: HOBBS, NM

FAX TO:

Sampling Date: 02/22/02

Sample Type: #1 WASTEWATER

#2 SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH Analyzed By: AH/BC

REACTIVITY

LAB NUMBE SAMPLE ID	Sulfide	Cyanide C	ORROSIVITY	IGNITABILITY
	(ppm)	(ppm)	(pH)	(°F)

ANALYSIS	DATE:	02/27/02	02/27/02	02/27/02	02/28/02
H6538-1	LOGGING GRIT TRA	Not reactive	Not reactive	7.47	>140
H6538-2	COMP. EAST &	Not reactive	Not reactive	10.4	Nonflammable
	WEST WASHBAY				·
	SUMPS				
Quality Co	ntrol	NR	NR	7.08	NR
True Value		NR	NR	7.00	NR
% Recover	гу	NR	NR	101	NR
Relative Pe	ercent Difference	NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Chemist /

Date



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02 Reporting Date: 02/27/02 Project Number: NOT GIVEN Project Name: SUMP ANALYSES

Project Location: HOBBS YARD Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.018	36	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.041	82	0.050
m, p-Cresol	200	<0.020	<0.005	0.038	76	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.025	50	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.050	100	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.027	54	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.042	84	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	92	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.042	84	0.050
Pentachlorophenol	100	<0.020	<0.005	0.044	88	0.050

**RECOVERY Fluorophenol 49 Phenol-d5 37 Nitrobenzene-d5 67 2-Fluorobiphenyl 67 2,4,6-Tribromophenol 67 Terphenyl-d14 66

METHODS: EPA SW-846 1311, 8270, 3510

Data

Burgess J. A. Cooke, Ph. D.



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02
Reporting Date: 02/27/02
Project Number: NOT GIVEN
Project Name: SUMP ANALYSES
Project Location: HOBBS YARD

Lab Number: H6538-2

Sample ID: COMPOSITE OF E. & W. WASHBAY SUMPS

Analysis Date: 02/26/02 Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H6538-2	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.112	112	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.094	94	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.085	85	0.100
Chloroform	6.0	<0.005	<0.005	0.099	99	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	< 0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.099	99	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	0.006	0.040	0.103	103	0.100

% RECOVERY

	MILOUVEILL	
Dibromofluoromethane	106	
Toluene-d8	113	
Bromofluorobenzene	108	

METHODS: EPA SW 846-8260, 1311

Bargess J. A. Cooke, Ph. D.

Date



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02

Reporting Date: 03/01/02

Project Number: NOT GIVEN

Project Location: HOBBS YARD

Project Name: SUMP ANALYSES

Analysis Date: 02/28/02

Sampling Date: 02/22/02 Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER

SAMPLE ID

TPH

(mg/Kg)

H6538-2	COMPOSITE OF E. & W.	2420
	WASHBAY SUMPS	
		# · · · · · · · · · · · · · · · · · · ·
Quality Contro	I	250
True Value Q0		240
% Recovery		104
Relative Perce	ent Difference	9.5

METHOD: EPA 418.1



ANALYTICAL RESULTS FOR HALLIBURTON ENERGY SERVICES ATTN: STEVE BAILEY 5801 LOVINGTON HWY HOBBS, NM 88240 FAX TO:

Receiving Date: 02/22/02

Reporting Date: 03/01/02

Project Number: NOT GIVEN

Project Name: SUMP ANALYSES

Project Location: HOBBS YARD

Analysis Date: 02/28/02

Sampling Date: 02/22/02

Sample Type: WASTEWATER

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBER SAMPLE ID

TPH

(mg/L)

H6538-1 L	OGGIN GRIT TRAP	1490
		<u> </u>
	,	
Quality Control		9.67
True Value QC		10.0
% Recovery		96.7
Relative Percent D	ifference	0.8

METHOD: EPA 418.1

Chemist

Date

TACM TATCATION

rorm C-13 Originated 8/8

Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

Submit Origi: Plus 1 Čo to appropris

District II (505) 748-1283 311 S.AFirst Artesia, NM 88210 <u> District III - (505) 334-6178</u> 1000 Rio Brazós Road Aztec, NM 87410

Hobbs, NM 88241-1980

<u>भात 1V</u> - (303) 827-7131	
REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator Halliburton
Verbal Approval Received: Yes No No	5. Originating Site Hobbs Facilit
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88	2318. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 5801 Lovington	Hwy, Hobbs, NM 88240
9. <u>Circle One</u> :	
A. All requests for approval to accept oilfield exempt wastes will be accepted. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved.	companied by necessary chemical analysis to
All transporters must certify the wastes delivered are only those consigned	d for transport.
BRIEF DESCRIPTION OF MATERIAL:	"
The following MSDS sheets are for Halliba cement. This waste is generated when the for an oilfield cement job and some cement into a truck for holding until disposertificate of waste status and MSDS on by this facility. Sundance would like a material into our disposal.	nt is left over. It is there sal. I have attached a
	1
Estimated Volume 400 Fons cy Known Volume (to be entered by the op	perator at the end of the haul) cy
SIGNATURE: Waste Management Facility Authorized Agent OFFICE	" O'M C. S. C.
TYPE OR PRINT NAME: DONNA L. ROACHH TE	LEPHONE NO. 505-394-2511
,	
(This space for State Use)	
APPROVED BY De Johnson TITLE: ENVIRO	ENGR DATE: 1/6/03
APPROVED BY Mortan Jahn - TITLE: Environm	unda 6 cologist DATE: 1/10/03

27

CERTIFICATE OF WASTE STATUS NON-EXEMPT WASTE MATERIAL

AS REQUIRED BY New Mexico CONSERVATION DIVISION

COMPANY/GE	NERATOR: _	Ha	lliburton En	ergy Ser	vices	
ADDRESS:5	801 Lovington	Hwy				
GENERATING	SITE:	Hobbs Y	ard			
			COUNTY	Lea	_STATE_	NM
TYPE OF WAS	TE:C	Cement .	·			
ESTIMATED V	OLUME:	1,000	0, sacks			
GENERATING	PROCESS:	Unus	ed cement	· <u>·</u>	<u>i</u> :	·
REMARKS:						
NMOCD FACIL	ITY:	Sun	dance			· · · · · · · · · · · · · · · · · · ·
TRUCKING FA	CILITY:		Halliburton			
as defined by the To my knowled verify the nature waster pursuar mixed with the provisions of 4	of acceptance for disp he Environmental Pro- dge, this waste will be re as non-hazardous. In to the provisions of waste so as to make to 0 CFR, Sections 2613	tection Agency's analyzed pursu I further certify 40 CFR, Part 26 the resultant mix	s (EPA) July 19 ant to the provis that to my know 51, subparts C ar kture a hazardou	88 regulatory ions of 40 C ledge "hazar id D, has not is waste" pur	y Determination FR Part 261 to Idous of listed It been added o	on.
AGI	ENT:	conf	ATURE			
NAI	ME:	Harvey Pr				
ADI	DRESS:		vington Hwy			
DA	ΓE:	12/31	/2002			

Halliburton Energy Services Shipping Papers

For

Movement of Materials According to Federal Regulations As specified on CFR 49 sec. 117.817 and 176.24

Location: Hobbs, New Mexico Truck or Trailer No. 52043 - 81 Driver	Telephone: (605) 392-6531
U.S. DOT Hazmat Reg. No051496 00	05 031E
Total Net Lbs 31,100 No.	ContType: Bulk
	naterials are properly classified, described,
packaged, marked and labeled, and are the applicable regulations of the Departs	in proper condition for transportation according t ment of Transportation.
Signature:	·
Time Loaded	н М
Bulk Ticket No.	Freight Bill No
Premium Cement	23,154 lbs.
POZ MIX	3960 lbs.
Silica	2904 165.
HA1-9	- 21 155.
CFR-3	92 165.
gilsonite	1,320 1/65.
HA140-344	115 165.
HR.7	46 155.
Salt (coment grade)	264 155.

FOR

HOVEHENT OF MATERIALS ACCORDING TO FEDERAL REGULATION AS SPECIFIED IN CFR 49, SEC.177.817 AND 176.24

LOCATION: 15540	
	FOR EMERGENCY CONTACT:
TRUCK# OR TRLR# ; 52043-8101	NAME: STEVE LUSCOMBE
	TELEPHONE: (505) 392-6531
DRIVER:	
U.S. DOT HAZHAT REG. NO 060497 003 42F	
*HM:*************************	
* * TOT GROSS LBS NUM CONTAINERS	S: TYPE: BULK
* **********************	+++++++++++++++++++++++++++++++++++++++
* * NOT RESTRICTED	
* *	
* *	
* *	
* *HALCO NAME & NO.: CEMENT - CLASS H - PRE	HIUH - BULK 516.00272
* * GROSS LBS/PKG:	ERG =>
**************	*******************
***********	***************
*************	****************
* * TOT GROSS LBS NUM CONTAINERS	S: TYPE: BULK
* **********************	**********
* * NOT RESTRICTED	
* *	
* *	
* *	
* *HALCO NAME & NO.: POZHIX(R) A - BULK	516.00286
* * * GROSS LBS/PKG:	ERG =>
************	*******
**********	*********

* * TOT GROSS LBS NUM CONTAINERS	: TYPE: BULK
* *++++++++++++++++++++++++++++++++++++	+++++++++++++++++++++++++++++++++++++++

* ************************************	*************
* * NOT RESTRICTED	**************************
* * NOT RESTRICTED * *	******************************
* * NOT RESTRICTED * * * *	
* * NOT RESTRICTED * * * * * * * * * * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -:	
<pre>* * NOT RESTRICTED * * * * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG:</pre>	50/50 U/ POZHIX
<pre>* * NOT RESTRICTED * * * * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG:</pre>	50/50 U/ POZMIX
* * NOT RESTRICTED * * * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * * * * * * * * * * * *	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * * * * * * * * * * * *	50/50 W/ POZMIX 516.00443 ERG => ************************************
+ + NOT RESTRICTED * * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ************************************
* * NOT RESTRICTED * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ***********************************
+ + NOT RESTRICTED * * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ***********************************
* * NOT RESTRICTED * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ***********************************
* * NOT RESTRICTED * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ***********************************
* * NOT RESTRICTED * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG => ***********************************
* * NOT RESTRICTED * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG =) ***********************************
* * NOT RESTRICTED * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG = > **********************************
* * NOT RESTRICTED * * * * * * * * * * * * * * * * * * *	50/50 W/ POZMIX 516.00443 ERG = > **********************************
* * NOT RESTRICTED * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG = > **********************************
* * NOT RESTRICTED * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG = > **********************************
* * NOT RESTRICTED * * * * * * * * * HALCO NAME & NO.: SILICALITE ADDITIVE * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG = > **********************************
* * NOT RESTRICTED * * * * *HALCO NAME & NO.: SILICALITE ADDITIVE -: * * GROSS LBS/PKG: ***********************************	50/50 W/ POZMIX 516.00443 ERG =) ***********************************

....... Curvet orkatore - outlitud intry

FOR

AS SPECIFIED IN CFR 49, SEC.177.817 AND 176.24

COCH110R, 10070			
TRUCK# OR TRLR# : 52043-8101	FOR EMERGENCY CONTACT: NAME: STEVE LUSCOMBE		٠.
ORIVER:	TELEPHONE: (505) 392-6531		
U.S. DOT HAZMAT REG. NO 060497 003 4	175		

* * TOT GROSS LBS NUM CONTA			
	++++++++++++++++++++++++++++++++++++++	:	
* * NOT RESTRICTED			
* *		:	
* *			()
* *			11 M
* *HALCO NAME & NO.: GILSONITE(R) RESI	N - BULK 516.00337		
* * * GROSS LBS/PKG:	ERG =>		
**********	**********		
**********	*********		
*********	*********		
* * TOT GROSS LBS NUM CONTA	INERS: TYPE: 50 LB BAG		
* ************	+++++++++++++++++++++++++++++++++++++++		
* * NOT RESTRICTED			
* *			
* *			
* *	NY ADDITION - P4 / AADDI		
* *HALCO NAME & NO.: HALAD(R) 344 CEME			
* *	ERG =>		

	**********	1	
* * TOT GROSS LBS NUM CONTA			
	++++++++++++++++++++++++++++++++++++++		" 1
* * NOT RESTRICTED			
* *			
* *			
* *			
* *HALCO NAME & NO.: HR-7 ADDITIVE	890.50903		
* * GROSS LBS/PKG:	ERG =)		
**********	********		
**********	********		

* + TOT GROSS LBS NUM_CONTA			
	+++++++++++++++++++++++++++++++++++++++		
* * NOT RESTRICTED			
* *		•	
<i>k</i> *		!	
# #	DE DUI V 517 65015		
* *HALCO NAME & NO.: SALT - CEMENT GRAD			
* * * GROSS L85/PKG:	ERG =>		11 M
·	****		•
*************	********		
THIC IC TO PERTITY THAT THE ARRIVE HAVES	WATERTALE ARE REPORTED U. D. ARRESTER		
THIS IS TO CERTIFY THAT THE ABOVE NAMED			
DESCRIBED, PACKAGED, MARKED AND LABELED			
TRANSPORTATION ACCORDING TO THE APPLICAB	ILE KEGULATIONS OF THE DEPARTMENT OF		
TRANSPORTATION.			

SIGNATURE ____

11 11

11 M

11. 11

4 1

MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DATE: 12-30-97 REVISED DATE 01-17-96

DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * * *

CHEHICAL CODE: CEMENT - CLASS H - PREMIUM - BULK PART NUMBER: 516002720

PKG QTY: BULK APPLICATION: CEMENTING

SERVICE USED: CEMENT

* * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * *

COMPONENT+ + + + + + + + + + PERCENT TLV PEL

PORTLAND CEMENT > 60 % 10 Mg/M3 10 Mg/M3 SILICA, CRYSTALLINE--QUARTZ (3 % 0.1 Mg/M3 0.1 Mg/M3

* * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * * *

PROPERTY

HEASUREHENT

APPEARANCE GRAY SOLID, POWDER
ODOR
SPECIFIC GRAVITY (H20=1)
BULK DENSITY
PH
12.4
SOLUBILITY IN WATER AT
20.0FG C GMS/100H/ H20
1-1.0

20 DEG C. GMS/100ML H20 .1-1.0 BIODEGRADABILITY N/A

PERCENT VOLATILES 0
EVAPORATION RATE(BUTYL ACETATE=1) N/A

VAPOR DENSITY N/A

VAPOR PRESSURE (HMHG) N/A
BOILING POINT(760 HMHG) N/A
POUR POINT N/A

FREEZE POINT N/A

SOLUBILITY IN SEAWATER NOT EVALUATED PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

+ * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * * *

NFPA(704) RATING:

HEALTH O FLAMMABILITY O REACTIVITY O SPECIAL NONE

FLASH POINT N/
AUTOIGNITION TEMPERATURE

NDF/ ND C

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/O UPPER N.

EXTINGUISHING MEDIA:

HONCOMBUSTIBLE

SPECIAL FIRE FIGHTING PROCEDURES:

NOT APPLICABLE.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NO FIRE HAZARO.

NOT APPLICABLE.

* * * * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO: IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3

----- EFFECTS OF EXPOSURE -----

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

FYE.

MAY CAUSE SEVERE IRRITATION WHICH MAY BE PERSISTENT.

SKIN:

CEMENT DUST CAN BE IRRITATING TO SKIN. WET CEMENT CAN DRY THE SKIN AND CAUSE ALKALI BURNS. SENSITIVE INDIVIDUALS MAY DEVELOP ALLERGIC DERMATITIS.

" M

" #

INHALATION:

MAY BE IRRITATING.

TREAT AS NUISANCE DUST.

INGESTION:

THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.

CHRONIC EFFECTS:

CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. CONTAINS TRACE AMOUNTS OF ARSENIC, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXPOSURE TO ARSENIC SHOULD NOT EXCEED THE FEDERAL OSHA PEL UNLESS USED IN A MANNER THAT PRODUCES EXTREMELY HEAVY AIRBORNE CONCENTRATIONS OF PRODUCT AT LEVELS WELL ABOVE THE ALLOWABLE LIMITS.

OTHER SYMPTOMS AFFECTED:

A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

------ EMERGENCY AND FIRST AID PROCEDURES -----

LIL

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.

SKIN:

PROMPTLY WASH SKIN WITH SOAP AND WATER.

INHALATION:

REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION, INGESTION:

00 NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

STABILITY: STABLE CONDITIONS TO AVOID:

STORE IN A DRY LOCATION.

INCOMPATIBILITY (MATERIALS TO AVOID):

NONE KNOWN.

HAZARDOUS DECOMPOSITION PRODUCTS:

NONE KNOWN.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

» NOT APPLICABLE.

+ * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: USE PROTECTIVE EQUIPHENT. SWEEP UP AND REHOVE. AVOID CREATING OR INHALING WASTE DISPOSAL METHOD: IF NOT CONTAMINATED, REUSE PRODUCT. GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL. * * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * * RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPHENT): TOXIC DUST/HIST RESPIRATOR. **VENTILATION:** USE ONLY WITH ADEQUATE VENTILATION. PROTECTIVE GLOVES: NORMAL WORK GLOVES. EYE PROTECTION: DUST PROOF GOGGLES. OTHER PROTECTIVE EQUIPMENT: NORMAL WORK COVERALLS. * * * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * * PRECAUTIONARY LABELING CEMENT - CLASS H - PREMIUM - BULK 516.002720 11 WARNING! CONTAINS A SHALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED - THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA. HAY CAUSE EYE AND SKIN IRRITATION. HAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT. FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII. OTHER HANDLING AND STORAGE CONDITIONS: STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE. AVOID CREATING OR INHALING DUST. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. CONTAINER DISPOSITION: EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION. · + + + + + + + + SECTION X - TRANSPORTATION INFORMATION + + + + + + + + + DOT SHIPPING DESCRIPTION: NOT RESTRICTED * * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y CHRONIC (DELAYED): N HIXTURE OR PURE MATERIAL: HIX B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY) N/A C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES) PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

CHEMICAL CONTAINS NO TOXIC INGREDIENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

TSCA YES CEPA NE EEC N/D ACOIN N/D NPR NE DRSH NE

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

SERVICES.

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES DUNCAN, OKLAHOMA 73536

DATE: 12-30-97 REVISED DATE 01-17-96

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * * * * *

PART NUMBER: 516002860 CHEMICAL CODE: POZMIX(R) A - BULK

APPLICATION: LIGHT WEIGHT CEMENT ADDITIVE PKG QTY: BULK

SERVICE USED: CEMENT

* * * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * * * *

PERCENT TLV

SILICA, CRYSTALLINE--QUARTZ 31-60 % 0.1 MG/M3 0.1 MG/M3 CALCIUM OXIDE 1-10 % 2 MG/M3 5 MG/M3 IRON DXIDE 1-10 % 5 MG/H3 10 MG/H3

1-10 % 10 HG/H3 10 HG/H3 HAGNESIUM OXIDE

SILICA, CRYSTALLINE-CRISTOBALITE 1-10 % 0.05 MG/H3 0.05 MG/H3 11-30 X 10 MG/H3 10 MG/H3 ALUMINUM OXIDE

* * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * * *

PROPERTY

HEASUREMENT

APPEARANCE GRAY OR BLACK SOLID, POWDER

ODORLESS SPECIFIC GRAVITY (H20=1) 2.300

BULK DENSITY 74.00 LB/CU.FT.

NOT DETERMINED

SOLUBILITY IN WATER AT

20 DEG C. GMS/100ML H20 NEG BIODEGRADABILITY N/A PERCENT VOLATILES

EVAPORATION RATE(BUTYL ACETATE=1) N/A

VAPOR DENSITY VAPOR PRESSURE (HMHG) N/A

BOILING POINT(760 HMHG) N/A

POUR POINT U N/A FREEZE POINT N/A

SOLUBILITY IN SEAWATER NOT EVALUATED

PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:

HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT FLASH NTHD

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A

EXTINGUISHING MEDIA:

USE HEDIA APPROPRIATE FOR SURROUNDING HATERIALS.

SPECIAL FIRE FIGHTING PROCEDURES:

NOT APPLICABLE.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NOT APPLICABLE.

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* * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *
  CALIFORNIA PROPOSITION 65:
  PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.
  CARCINOGENIC DETERMINATION:
  PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN
  ACCORDING TO : IARC
  PRODUCT TOXICITY DATA: NOT DETERMINED
  PRODUCT TLV: 0.1 MG/M3 (AS CRYSTALLINE SILICA)
  ----- EFFECTS OF EXPOSURE -----
  PRIMARY ROUTES OF EXPOSURE:
    INHALATION.
  EYE:
    DUST HAY CAUSE A HECHANICAL IRRITATION TO THE EYES.
  SKIN:
    ESSENTIALLY NON-IRRITATING.
  INHALATION:
    HAY BE IRRITATING.
    REPEATED OVEREXPOSURE TO CRYSTALLINE SILICA MAY CAUSE ACUTE SILICOSIS, A
    FIBROTIC LUNG CONDITION THAT REDUCES LUNG FUNCTION AND MAY LEAD TO
    CARDIOPULMONARY IMPAIRMENT. SILICOSIS IS RAPIDLY PROGRESSIVE AND THE ONSET
    OF SYMPTOMS HAY BE DELAYED.
  INGESTION:
    THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF
   ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
 CHRONIC EFFECTS:
    CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE
    DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINGGENICITY OF CRYSTALLINE
    SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED
    EVIDENCE" HEARS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
 OTHER SYMPTOMS AFFECTED:
    MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.
  ----- EMERGENCY AND FIRST AID PROCEDURES -----
 EYE:
    IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
    IRRITATION PERSISTS, SEEK PROHPT MEDICAL ATTENTION.
  SKIN:
    PROHPTLY WASH SKIN WITH SOAP AND WATER.
    REMOVE TO FRESH AIR. IF IRRIJATION PERSISTS, SEEK MEDICAL ATTENTION,
  INGESTION:
    DO NOT INDUCE VOHITING! IN GENERAL, NO TREATHENT IS NECESSARY UNLESS LARGE
    QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.
 STABILITY: STABLE
, CONDITIONS TO AVOID:
    NOT APPLICABLE.
 INCOMPATIBILITY (MATERIALS TO AVOID): '
    STRONG OXIDIZERS.
 HAZARDOUS DECOMPOSITION PRODUCTS:
    NONE KNOWN.
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HAZARO POLYMERIZATION: WON"T OCCUR

CONDITIONS TO AVOID: NOT APPLICABLE.

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STEPS TO BE TAKEN IF HATERIAL IS RELEASED OR SPILLED:
    USE PROTECTIVE EQUIPHENT. SWEEP UP AND REHOVE. AVOID CREATING OR INHALING
 WASTE DISPOSAL METHOD:
    IF NOT CONTAMINATED, REUSE PRODUCT.
    GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
 * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * *
 RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
    TOXIC DUST/MIST RESPIRATOR.
 VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
 PROTECTIVE GLOVES:
   NORMAL WORK GLOVES.
 EYE PROTECTION:
   DUST PROOF GOGGLES.
 OTHER PROTECTIVE EQUIPMENT:
   HORMAL WORK COVERALLS.
 · * * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *
 PRECAUTIONARY LABELING POZNIX(R) A - BULK
                                                                 516,002860
   WARNING!
   CONTAINS CRYSTALLINE SILICA WHICH MAY CAUSE A DELAYED, PROGRESSIVE LUNG
   DISEASE (SILICOSIS). THE IARC AND NTP HAVE DETERMINED THERE IS LIMITED
   EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
   MAY CAUSE HILD EYE AND RESPIRATORY TRACT IRRITATION.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
   STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
   AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
   EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN
   PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST
   OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.
* * * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * * * *
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
          * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
  FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
   CHRONIC (DELAYED): Y HIXTURE OR PURE MATERIAL: HIX
B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
                        N/A
© EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
   PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
   CHEMICAL CONTAINS NO TOXIC INGREDIENTS
```

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

EEC N/D ACOIN N/D NPR NE

DRSH NE

TSCA YES CEPA NE

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SERVICES.

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY

PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY

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HATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DATE: 12-30-97 REVISED DATE 01-17-96

DUNCAN, OKLAHONA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * * PART NUMBER: 516004430 CHEMICAL CODE: SILICALITE ADDITIVE - 50/50 W/ POZMIX

PKG QTY: BULK

APPLICATION: CEMENT ADDITIVE

SERVICE USED: CEMENT

* * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

PERCENT TLV

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SILICA, AMORPHOUS-FUMED

→ 60 % 10 HG/H3 6 HG/H3

* * * * * * * * * * * * * SECTION III ~ PHYSICAL DATA * * * * * * * * * * * * * *

PROPERTY

MEASUREHENT

APPEARANCE BLACK SOLID, POWDER ODOR **ODORLESS** SPECIFIC GRAVITY (H20=1) 2.380

BULK DENSITY 26.30 LB/CU.FT. NOT DETERMINED

SOLUBILITY IN WATER AT

20 DEG C. GHS/100HL H20 INSOLUBLE

BIODEGRADABILITY PERCENT VOLATILES EVAPORATION RATE(BUTYL ACETATE=1) N/A VAPOR DENSITY VAPOR PRESSURE (MMHG) N/A BOILING POINT (760 MMHG) N/A POUR POINT N/A

FREEZE POINT SOLUBILITY IN SEAWATER NOT EVALUATED

PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * SECTION IV = FIRE AND EXPLOSION DATA * * * * * * * * * * * *

NFPA(704) RATING:

HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT N/A

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/O

EXTINGUISHING MEDIA:

USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.

SPECIAL FIRE FIGHTING PROCEDURES:

NOT APPLICABLE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: .

NOT APPLICABLE.

* * * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:

PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION: PRODUCT, OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : IARC PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 3160 MG/KG TOX IPR-RAT LDLO: 50 MG/KG PRODUCT TLV: NOT ESTABLISHED ----- EFFECTS OF EXPOSURE -----ROUTES OF EXPOSURE: EYE OR SKIN CONTACT, INHALATION. DUST HAY CAUSE A MECHANICAL IRRITATION TO THE EYES. SKIN: ESSENTIALLY NON-IRRITATING. INHALATION: MAY BE IRRITATING. CONTAINS A SHALL AHOUNT OF CRYSTALLINE SILICA, REPEAT OR PROLONG EXPOSURES MAY CAUSE A DELAYED RESPIRATORY SYSTEM ILLNESS, SILICOSIS. SYMPTOMS INCLUDE SHORTNESS OF BREATH, COUGH, FEVER, WEIGHT LOSS, CHEST PAIN, REDUCTION OF LUNG FUNCTION AND HEART IMPAIRMENT. ONSET OF SYMPTOMS MAY BE DELAYED. INGESTION: THIS HATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION. CHRONIC EFFECTS: CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" HEARS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. OTHER SYMPTOMS AFFECTED: MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE. ----- EMERGENCY AND FIRST AID PROCEDURES -----EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION. SKIN: PROHPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE, IF IRRITATION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION. INHALATION: REHOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION, INGESTION: DO NOT INDUCE VOMITING! IN GENERAL, NO TREATHENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, HEDICAL ADVICE SHOULD BE OBTAINED. * * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * * * STABILITY: STABLE CONDITIONS TO AVOID: NOT APPLICABLE. HYDROGEN FLUORIDE OR HYDROFLUORIC ACID.

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INCOMPATIBILITY (MATERIALS TO AVOID): HAZARDOUS DECOMPOSITION PRODUCTS: NONE KNOWN. HAZARD POLYMERIZATION: NON"T OCCUR CONDITIONS TO AVOID: NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING

```
DUST.
 WASTE DISPOSAL METHOD:
   IF NOT CONTAMINATED, REUSE PRODUCT.
   GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
 * * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * *
 RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
   TOXIC DUST/HIST RESPIRATOR.
VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE
   USED IN DUSTY ENVIRONMENTS.
PROTECTIVE GLOVES:
   NORHAL WORK GLOVES.
EYE PROTECTION:
   DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
   NORMAL WORK COVERALLS.
PRECAUTIONARY LABELING SILICALITE ADDITIVE - 50/50 W/ POZMIX
                                                              516.004430
   WARNING!
   CONTAINS A SHALL AHOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED
   INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE
   INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED
   THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
   MAY CAUSE RESPIRATORY IRRITATION.
   DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
  FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
  STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
  EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN
   PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST
  OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.
   * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * *
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
* * * * * * * * * * SECTION XI ~~ ENVIRONMENTAL EVALUATION * * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
  FIRE: N
             PRESSURE: N
                         REACTIVE: N
                                        ACUTE (IMMEDIATE): Y
  CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: MIX
B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
  N/A
                       N/A
C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
  PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
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H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

CEPA NE

TSCA YES

CHEHICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

EEC N/D

ACOIN N/D NPR NE

DRSM NE

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE HANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DATE: 12-30-97 REVISED DATE 08-20-97

DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 DR 405/251-3569

AFTER HOURS: 405/251-3760

CHEMICAL CODE: HALAD(R) 9 CEMENT ADDITIVE PART NUMBER: 070155560

PKG QTY: 50 LB BAG APPLICATION: LOW FLUID LOSS ADDITIVE

SERVICE USED: CEMENT

* * * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

COMPONENT+ + + + + + + + + + PERCENT TLV PEL

CONDENSATE OF SULFONATED ORGANIC SALT 31-60 % 10 HG/H3 15 HG/H3

* * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * * *

PROPERTY

MEASUREMENT

APPEARANCE TAN SOLID POWDER
ODOR ODORLESS

SPECIFIC GRAVITY (H2O=1) 1.220

BULK DENSITY 37.20 LB/CU.FT.

PH 5.5

SOLUBILITY IN WATER AT

20 DEG C. GMS/100ML H20 10

BIODEGRADABILITY READILY
PERCENT VOLATILES N/A

EVAPORATION RATE(BUTYL ACETATE=1) N/A
VAPOR DENSITY N/A

VAPOR PRESSURE (HHHG) N/A

BOILING POINT(760 HMHG) N/A
POUR POINT N/A

FREEZE POINT N/A

SOLUBILITY IN SEAWATER FORKS GEL

PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * SECTION IV -- FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:

HEALTH O FLAMMABILITY O REACTIVITY O SPECIAL NONE

FLASH POINT N/A

AUTOIGNITION TEMPERATURE NO NO NO

FLAMMABLE LIMITS (X BY VOLUME) LOWER N/D UPPER N/O

EXTINGUISHING HEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND SULFUR OXIDES.

ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL

EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

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* * * * * * * * * * * * * * * SECTION V - HEALTH HAZARO DATA * * * * * * * * * * * * *
CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.
CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO :
                   "NTP, IARC, OSHA, OR, ACIGH".
PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPH(BROWN SHRIMP)
PRODUCT TLV: NUISANCE: 10 MG/H3(T)
 ----- EFFECTS OF EXPOSURE ------
ROUTES OF EXPOSURE:
   EYE OR SKIN CONTACT, INHALATION.
   DUST HAY CAUSE SEVERE EYE IRRITATION.
SKIN:
   DUST HAY CAUSE HILD SKIN IRRITATION.
INHALATION:
   HAY BE IRRITATING.
INGESTION:
   NO DATA AVAILABLE
CHRONIC EFFECTS:
   NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
   A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
  -EXPOSURE TO THIS PRODUCT.
----- EMERGENCY AND FIRST AID PROCEDURES -----
   IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
   IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
   IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 HINUTES WHILE
   REHOVING CONTAMINATED CLOTHING AND SHOES. IF IRRITATION PERSISTS, SEEK
   PROMPT MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.
INHALATION:
   REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK HEDICAL ATTENTION,
INGESTION:
   DO NOT INDUCE VOHITING! IN GENERAL, NO TREATHENT IS NECESSARY UNLESS LARGE
   QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.
  * * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * *
STABILITY: STABLE
CONDITIONS TO AVOID:
   NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
   STRONG OXIDIZERS.
HAZARBOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON'T OCCUR
CONDITIONS TO AVOID:
  NOT APPLICABLE.
  * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * * * *
 TEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
 > USE PROTECTIVE EQUIPHENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING
   DUST.
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HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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MASTE DISPOSAL KETHOD:
  IF NOT CONTAMINATED, REUSE PRODUCT.
  GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
 * * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * *
 RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
   TOXIC DUST/HIST RESPIRATOR.
VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
   NORMAL WORK GLOVES.
EYE PROTECTION:
   DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
   NORMAL WORK COVERALLS.
* * * * * * * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * * * *
PRECAUTIONARY LABELING HALAD(R) 9 CEMENT ADDITIVE
                                                                070.155560
   WARNING!
   MAY CAUSE ALLERGIC RESPIRATORY REACTION IN SUSCEPTIBLE INDIVIDUALS.
   MAY CAUSE SKIN AND RESPIRATORY IRRITATION.
   MAY CAUSE SEVERE EYE IRRITATION.
   AIRBORNE DUST MAY BE EXPLOSIVE!
   PRODUCT IS VERY SLIPPERY WHEN WET! DO NOT SPREAD WITH WATER.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
   STORE AWAY FROM OXIDIZERS.
  STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
  AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
  EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
  RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
  LANOFILL OPERATOR'S AUTHORIZATION.
* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
* * * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
  FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
   CHRONIC (DELAYED): N HIXIURE OR PURE HATERIAL: MIX
3. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
                       N/A
EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
  PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
 . EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
  CHENICAL CONTAINS NO TOXIC INGREDIENTS
 . COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
  TSCA YES CEPA YES EEC NO ACOIN N/D NPR NE DRSM NE
  EPA - RCRA (HAZARBOUS WASTE), 40 CFR 261
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IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A

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THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOHER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES DUNCAN, OKLAHONA 73536

DATE: 12-30-97 REVISED DATE 01-17-96

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * * *

CHEMICAL CODE: CFR-3 CEMENT FRICTION REDUCER DEFOAM PART NUMBER: 516002950

APPLICATION: DISPERSANT FOR SALT CEMENT PKG QTY: 50 LB BAG

SERVICE USED: CEMENT

* * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * * *

PERCENT TLV

SULFONIC ACID SALT > 60 % NOT EST NOT EST SILICA, AMORPHOUS-DIATOMACEOUS EARTH 1-10 % 10 MG/H3 6 MG/H3

* * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * *

PROPERTY

MEASUREMENT

APPEARANCE DARK RED SOLID, POWDER

ODOR **MUSTY** SPECIFIC GRAVITY (H20=1) 1.290

38,00 LB/CU.FT. BULK DENSITY

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SOLUBILITY IN WATER AT

20 DEG C. GMS/100NL H20 SOLUBLE

BIODEGRADABILITY N/D PERCENT VOLATILES

EVAPORATION RATE(BUTYL ACETATE=1) N/A

VAPOR DENSITY N/A

VAPOR PRESSURE (MMHG) N/A N/A

BOILING POINT(760 HMHG) POUR POINT N/A

FREEZE POINT SOLUBILITY IN SEAUATER > 600,000

PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * *

NFPA(704) RATING:

HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT N/A

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER

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EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON HONOXIDE AND SULFUR OXIDES.

ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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* * * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *
  CALIFORNIA PROPOSITION 65:
  PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.
  CARCINOGENIC DETERMINATION:
  PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
  ACCORDING TO: "NTP, IARC, OSHA, OR, ACIGH".
  PRODUCT TOXICITY DATA: AQU TLH96: >3300 PPH (BROWN SHRIMP)
  PRODUCT TLV: 10 MG/M3 (T); 5 MG/M3 (R)
  ----- EFFECTS OF EXPOSURE ------
  ROUTES OF EXPOSURE:
     EYE OR SKIN CONTACT, INHALATION.
     DUST MAY CAUSE HILD EYE IRRITATION.
  SKIN:
    ESSENTIALLY NON-IRRITATING.
  INHALATION:
    MAY BE IRRITATING.
    TREAT AS NUISANCE DUST.
  INGESTION:
    NO DATA AVAILABLE
  CHRONIC EFFECTS:
    NO CHRONIC EFFECTS EXPECTED.
 OTHER SYMPTOMS AFFECTED:
    A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
    EXPOSURE TO THIS PRODUCT.
  ------ EMERGENCY AND FIRST AID PROCEDURES ------
    INHEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
    IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
    PROMPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE.
    IF IRRITATION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
 INHALATION:
    REHOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
 INGESTION:
    DO NOT INDUCE VONITING! GIVE UP TO TWO (2) QUARTS OF WATER TO BILUTE.
    NEVER GIVE ANYTHING BY HOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL
    ATTENTION.
 * * * * * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * * *
 STABILITY: STABLE
 CONDITIONS TO AVOID:
    NOT APPLICABLE.
 INCOMPATIBILITY (MATERIALS TO AVOID):
    STRONG OXIDIZERS.
, HAZARDOUS DECOMPOSITION PRODUCTS:
    OXIDES OF SULFUR, CARBON DIOXIDE AND/OR CARBON HONOXIDE.
 HAZARD POLYMERIZATION: WON"T OCCUR
 CONDITIONS TO AVOID:
    NOT APPLICABLE.
 * * * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
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USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING

DUST.

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IF NOT CONTANINATED, REUSE PRODUCT.
   GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
 * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * *
 RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
   NOT NORMALLY NECESSARY.
   TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
   NORMAL WORK GLOVES.
EYE PROTECTION:
   GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
   NORMAL WORK COVERALLS.
* * * * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * * *
PRECAUTIONARY LABELING CFR-3 CEMENT FRICTION REDUCER DEFOAM
                                                                 516.002950
   WARNING!
   CAUTION!
   IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
   TREAT AS NUISANCE DUST.
   AIRBORNE DUST MAY BE EXPLOSIVE!
   PRODUCT IS VERY SLIPPERY WHEN WET! DO NOT SPREAD WITH WATER.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
   STORE AWAY FROM OXIDIZERS.
   STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
  EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
   RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
  LANDFILL OPERATOR'S AUTHORIZATION.
* * * * * * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * * *
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
        * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
           PRESSURE: N REACTIVE: N
                                         ACUTE (INMEDIATE): Y
   CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: PURE
B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
                        N/A
C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
  PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
  CHEMICAL CONTAINS NO TOXIC INGREDIENTS
1. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
  TSCA YES
            CEPA NE
                          EEC N/D
                                   ACOIN N/D
                                                  NPR NE
                                                             DRSM NE
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MASTE DISPOSAL KETHOD:

1. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

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THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE HANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES DUNCAN, OKLAHONA 73536

DATE: 12-30-97 REVISED DATE 01-17-96

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * *

CHEHICAL CODE: GILSONITE(R) RESIN - BULK

PART NUMBER: 516003370

PEL

PKG QTY: BULK

APPLICATION: LOST CIRC & LT WT ADDITIVE

SERVICE USED: CEMENTING

* * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * *

PERCENT TLV

NATURAL ASPHALT

→ 60 % 10 HG/H3 15 HG/H3

* * * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * *

PROPERTY

HEASUREHENT

APPEARANCE DARK-BROWN SOLID ODDR **ASPHALTIC** SPECIFIC GRAVITY (H20=1) 1.050 BULK DENSITY 65.55 LB/CU.FT. 5.8 SOLUBILITY IN WATER AT

20 DEG C. GMS/100ML H20 NIL BIODEGRADABILITY SLOULY PERCENT VOLATILES EVAPORATION RATE(BUTYL ACETATE=1)

VAPOR DENSITY N/A VAPOR PRESSURE (HHHG) N/D

BOILING POINT (760 MMHG) N/A POUR POINT N/A FREEZE POINT N/A

SOLUBILITY IN SEAWATER NOT EVALUATED PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * * SECTION IV-~FIRE AND EXPLOSION DATA * * * * * * * *

NFPA(704) RATING:

HEALTH 0 REACTIVITY 1 FLAMMABILITY 1 SPECIAL NONE

FLASH POINT **AUTOIGNITION TEMPERATURE**

315 C FLASH MTHD COC 599 F /

N/D

ND

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER 0.020 UPPER

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EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAH, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE TOXIC GASES.

ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO HINIHIZE THIS POTENTIAL HAZARD.

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,* * * * * * * * * * * SECTION V - HEALTH HAZARO DATA * * * * * * * * * * * * *
 CALIFORNIA PROPOSITION 65:
 PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.
 CARCINOGENIC DETERMINATION:
 PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
 ACCORDING TO :
                    "NTP, IARC, OSHA, OR, ACIGH".
 PRODUCT TOXICITY DATA: TOX DETAILED STUDIES AVAILABLE UPON
                        REQUEST
 PRODUCT TLV: 10 MG/H3 (N)
                                                                                             !! 1
 ------ EFFECTS OF EXPOSURE ---------
 ROUTES OF EXPOSURE:
   EYE OR SKIN CONTACT, INHALATION.
 EYE:
    DUST HAY CAUSE A HECHANICAL IRRITATION TO THE EYES.
 SKIN:
   MAY CAUSE HILD IRRITATION.
 INHALATION:
   MAY BE IRRITATING.
 INGESTION:
   NO DATA AVAILABLE
 CHRONIC EFFECTS:
   NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.
 OTHER SYMPTOMS AFFECTED:
   A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
  - EXPOSURE TO THIS PRODUCT.
 ----- EMERGENCY AND FIRST AID PROCEDURES -----
                                                                                             11 11
   INHEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
   IRRITATION PERSISTS, SEEK PROHPT MEDICAL ATTENTION.
SKIN:
   PROMPTLY WASH SKIN WITH SOAP AND WATER.
INHALATION:
   REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
   DO NOT INDUCE VOKITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE.
   NEVER GIVE ANYTHING BY HOUTH TO AN UNCONSCIOUS PERSON. SEEK HEDICAL
   ATTENTION.
 * * * * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * * * *
STABILITY: STABLE
CONDITIONS TO AVOID:
   NOT APPLICABLE.
 INCOMPATIBILITY (MATERIALS TO AVOID):
   STRONG OXIDIZERS.
                                                                                              11 11
HAZARDOUS DECOMPOSITION PRODUCTS:
   CARBON DIOXIDE AND/OR CARBON HONOXIDE AND UNIDENTIFIED HYDROCARBON VAPORS.
WHAZARD POLYMERIZATION: WON'T OCCUR
CONDITIONS TO AVOID:
   NOT APPLICABLE.
* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * * *
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
   USE PROTECTIVE EQUIPMENT. SWEEP UP AND REHOVE, AVOID CREATING OR INHALING
DUST.
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UASTE DISPOSAL METHOD:

IF NOT CONTAMINATED, REUSE PRODUCT.

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   GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT ABSORBED MATERIAL TO
   · SANITARY LANDFILL.
  * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * *
RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
   NOT NORHALLY NECESSARY.
   TOXIC DUST/HIST RESPIRATOR.
VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
   NORMAL WORK GLOVES.
EYE PROTECTION:
   DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
   NORHAL WORK COVERALLS.
PRECAUTIONARY LABELING GILSONITE(R) RESIN - BULK
                                                              516.003370
   CAUTION!
   MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
   STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
   AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
  EMPTY CONTAINER COMPLETELY, TRANSPORT CONTAINER WITH ALL CLOSURES IN
   PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST
   OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.
* * * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * *
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
* * * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
  FIRE: N
             PRESSURE: N REACTIVE: N
                                          ACUTE (IMMEDIATE): Y
   CHRONIC (DELAYED): N HIXTURE OR PURE MATERIAL: HIX
8. EPA - CERCLA/SUPERFUND, 40 CER 302 (REPORTABLE SPILL QUANTITY)
                       N/A
C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
  PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
  CHEMICAL CONTAINS NO TOXIC INGREDIENTS
E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
   TSCA YES
              CEPA NE
                         EEC N/D
                                    ACOIN N/D
                                                 NPR NE
                                                           DRSM NE
1. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261
   IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
  HAZAROGUS WASTE
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THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DATE: 12-30-97 REVISED DATE 08-19-97

DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569 AFTER HOURS: 405/251-3760

* * * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * * PART NUMBER: 516002270 CHEMICAL CODE: HALAD(R) 344 CEMENT ADDITIVE APPLICATION: FLUID LOSS ADDITIVE PKG QTY: 50 LB BAG SERVICE USED: CEMENT + + + + + + + + + + SECTION II - COMPONENT INFORMATION + + + + + PERCENT TLV HODIFIED ACRYLAHIDE COPOLYMER → 60 % 10 MG/H3 15 MG/H3 * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * * PROPERTY **HEASUREHENT APPEARANCE** WHITE TO OFF-WHITE SOLID POWDER ODOR ODORLESS SPECIFIC GRAVITY (H20=1) 1.220 BULK DENSITY 26.00 LB/CU.FT. NOT DETERMINED SOLUBILITY IN WATER AT SOLUBLE 20 DEG C. GMS/100ML H20 BIODEGRADABILITY N/n PERCENT VOLATILES ۲5 EVAPORATION RATE(BUTYL ACETATE=1) VAPOR DENSITY N/A VAPOR PRESSURE (NHHG) N/D BOILING POINT (760 MMHG) N/D POUR POINT N/A FREEZE POINT N/A SOLUBILITY IN SEAWATER SOLUBLE PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED * * * * * * * * * * * SECTION IV---FIRE AND EXPLOSION DATA * * * * * * * * * * * NFPA(704) RATING: HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE FLASH POINT N/A **AUTOIGNITION TEMPERATURE** NO ND FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER UPPER N/D N/D :AIDƏM ƏNIHƏIUƏNIYXƏ, USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS. SPECIAL FIRE FIGHTING PROCEDURES: AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS. UNUSUAL FIRE AND EXPLOSION HAZARDS: '

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON

ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARO IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO HINIMIZE THIS POTENTIAL HAZARD.

HONOXIDE AND NITROGEN OXIDES.

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CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.
CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
                   "NTP, IARC, OSHA, OR, ACIGH".
ACCORDING TO :
PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPM(BROWN SHRIMP)
PRODUCT TLV: NOT ESTABLISHED
----- EFFECTS OF EXPOSURE -----
ROUTES OF EXPOSURE:
   EYE OR SKIN CONTACT, INHALATION.
   MAY CAUSE HILD IRRITATION.
SKIN:
   ESSENTIALLY NON-IRRITATING.
INHALATION:
   MAY BE IRRITATING.
   TREAT AS NUISANCE DUST.
INGESTION:
   NO DATA AVAILABLE
CHRONIC EFFECTS:
   NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
   A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
   EXPOSURE TO THIS PRODUCT.
------ EMERGENCY AND FIRST AID PROCEDURES -----
   IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
   IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
   PROMPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE.
   IF IRRITATION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
   REHOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK HEDICAL ATTENTION,
INGESTION:
   DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
   QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.
    * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * * * *
STABILITY: STABLE
CONDITIONS TO AVOID:
   NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
   NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
   NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARO POLYMERIZATION: WON'T OCCUR
CONDITIONS TO AVOID:
  NOT APPLICABLE.
* * * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * *
```

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING

DUST.

UASTE DISPOSAL METHOD:

IF NOT CONTAMINATED, REUSE PRODUCT.

```
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
  * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * *
RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
   TOXIC DUST/HIST RESPIRATOR.
VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
   NORMAL WORK GLOVES.
EYE PROTECTION:
   GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
   NORMAL WORK COVERALLS.
* * * * * * * * * * * * * * * SECTION IX ~ SPECIAL PRECAUTIONS * * * * * * * * * * *
PRECAUTIONARY LABELING HALAD(R) 344 CEMENT ADDITIVE
                                                              516,002270
   CAUTION!
   HAY CAUSE HILD IRRITATION TO EYES, SKIN AND THE RESPIRATORY SYSTEM.
   TREAT AS NUISANCE DUST.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
   STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
   EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
   RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
   LANDFILL OPERATOR'S AUTHORIZATION.
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
       * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARO CLASSIFICATION & ASSOCIATED INFORMATION
             PRESSURE: N
                           REACTIVE: N
                                        ACUTE (IMMEDIATE): Y
   CHRONIC (DELAYED): N
                          MIXTURE OR PURE HATERIAL: PURE
B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
                       N/A
C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
   PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
   CHEMICAL CONTAINS NO TOXIC INGREDIENTS
E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
   TSCA YES
              CEPA NE
                         EEC NO
                                    ACOIN NO
                                                 NPR NE
                                                           DRSH NE
H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261
  IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
  HAZARDOUS WASTE
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DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SCURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY DUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY

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MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES DUNCAN, OKLAHOHA 73536

DATE: 12-30-97 REVISED DATE 01-17-96

EHERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569

AFTER HOURS: 405/251-3760 * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * * CHEHICAL CODE: HR-7 ADDITIVE PART NUMBER: 890509030 PKG QTY: 50 LB BAG APPLICATION: RETARDER & DISPERSANT SERVICE USED: EMENTING * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * PERCENT TLV PEL MODIFIED LIGNOSULFONATE UNK % 10 MG/H3 15 MG/H3 * * * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * * * * PROPERTY HEASUREMENT APPEARANCE BLACK SOLID, POWDER OBOR **MOLASSES-LIKE** SPECIFIC GRAVITY (H20=1) 1.410 BULK DENSITY 38.00 LB/CU.FT. PH NOT DETERMINED SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20 FREELY BIODEGRADABILITY SLOWLY PERCENT VOLATILES N/A EVAPORATION RATE(BUTYL ACETATE=1) N/A VAPOR DENSITY N/A VAPOR PRESSURE (MMHG) N/D BOILING POINT(760 MHHG) N/A POUR POINT FREEZE POINT N/A SOLUBILITY IN SEAWATER NOT EVALUATED PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED * * * * * * * * * * SECTION IV --BIRE AND EXPLOSION DATA * * * * * * * NFPA(704) RATING: REACTIVITY O HEALTH 0 FLAMMABILITY 1 SPECIAL NONE FLASH POINT N/A ND ND

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/O UPPER

EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE SPECIAL FIRE FIGHTING PROCEDURES:

AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.

FULL PROTECTIVE CLOTHING AND NIOSH/HSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

JNUSUAL FIRE AND EXPLOSION HAZARDS:

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND SULFUR OXIDES.

ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

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HOUSEREEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.
  * * * * * * * * * * * * * * * SECTION U - HEALTH HAZARD DATA * * * * * * * * * * * * *
CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.
CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO :
                   "NTP, IARC, OSHA, OR, ACIGH".
PRODUCT TOXICITY DATA: AQU TLM96: >1000 PPM(BROWN SHRIMP)
                                                                                       11 1
PRODUCT TLV: NUISANCE: 10HG/H3(T)
----- EFFECTS OF EXPOSURE -----
ROUTES OF EXPOSURE:
   EYE OR SKIN CONTACT, INHALATION.
EYE:
   MAY CAUSE HILD IRRITATION.
SKIN:
   ESSENTIALLY NON-IRRITATING.
INHALATION:
   MAY BE IRRITATING.
INGESTION:
   NO DATA AVAILABLE
CHRONIC EFFECTS:
   NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
   A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
  EXPOSURE TO THIS PRODUCT.
------ EMERGENCY AND FIRST AID PROCEDURES -------
   INHEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
   IRRITATION PERSISTS, SEEK PROHPT HEDICAL ATTENTION.
   PROHPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE.
   IF IRRITATION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
   REHOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK HEDICAL ATTENTION,
INGESTION:
  DO NOT INDUCE VONITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
   QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.
STABILITY: STABLE
                                                                                          " M
CONDITIONS TO AVOID:
   NOT APPLICABLE.
HAZARDOUS DECOMPOSITION PRODUCTS:
  OXIDES OF SULFUR, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
  NOT APPLICABLE.
* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
  USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING
   DUST.
JASTE DISPOSAL METHOD:
```

GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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** * * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * *
 RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPHENT):
    NOT NORHALLY NECESSARY.
    TOXIC DUST/HIST RESPIRATOR.
 VENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
 PROTECTIVE GLOVES:
   NORHAL WORK GLOVES.
 EYE PROTECTION:
   GOGGLES OR SAFETY GLASSES.
 OTHER PROTECTIVE EQUIPMENT:
   NORHAL WORK COVERALLS.
                                                                                              11 1
 * * * * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * *
 PRECAUTIONARY LABELING HR-7 ADDITIVE
                                                                  890.509030
   CAUTION!
   HAY CAUSE HILD IRRITATION TO EYES, SKIN AND UPPER RESPIRATORY SYSTEM.
   FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
 OTHER HANDLING AND STORAGE CONDITIONS:
   STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
   AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
   EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
   RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
   LANDFILL OPERATOR'S AUTHORIZATION.
* * * * * * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * * * *
                                                                                                11 11
DOT SHIPPING DESCRIPTION:
NOT RESTRICTED
 * * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *
EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
   FIRE: N
              PRESSURE: N
                             REACTIVE: N
                                          ACUTE (INHEDIATE): Y
   CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: MIX
B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
                        N/A
C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
   PRODUCT CONTAINS NO EXTREMELY-MAZARDOUS COMPONENTS
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
   CHEMICAL CONTAINS NO TOXIC INGREDIENTS
E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
   TSCA YES
               CEPA NE
                           EEC N/D
                                      ACOIN N/D
                                                    NPR NE
                                                              DRSH NE
H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261
   IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
   HAZAROOUS WASTE
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DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM

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SALT-CEMENT GRADE, BULK

PAGE

HALLIBURTON SERVICES
DUNCAN, OKLAHOMA 73535

DATE: - - REVISED DATE 09-0

EMERGENCY TELEPHONE: 405/251-3565 DR 405/251-3569

AFTER HOURS: 405/251-3760

* * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * *

CHEMICAL CODE: SALT-CEMENT GRADE, BULK PART NUMBER: 51600

PKG QTY: BULK APPLICATION: ACCELERATOR

SERVICE USED: CEMENT

. * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * *

A A A A A A A A A BECITOR II - COMPONENT HALORIMITOR A A A A A A A

COMPONENT+ + + + + + + + + + PERCENT TLV PEL

SODIUM CHLORIDE > 60 % 10 MG/M3 15 MG/M3

* * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY

MEASUREMENT

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APPEARANCE WHITE SOLID, CRYSTALLINE ODORLESS SPECIFIC GRAVITY (H2O=1) 2.165
BULK DENSITY 71.00 LB/CU.FT. PH 5.2 FOR SAT SOL SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20 35.7
BIODEGRADABILITY N/A PERCENT UPLATILES

PERCENT VOLATILES

EVAPORATION RATE(BUTYL ACETATE=1)

VAPOR DENSITY

VAPOR PRESSURE (MMHG)

BLILING POINT(760 MMHG)

PCUR POINT N/A N/A

SOLUBILITY IN SEAWATER SOLUBLE

PARTITION COEF (OCTANOL IN WATER) NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * *

NFPA(704) RATING:

HEALTH O FLAMMABILITY O REACTIVITY O SPECIAL NONE NONE

AUTOIGNITION TEMPERATURE / ND F / ... ND C

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/O " UPPER N/O

E. 'NGUISHING MEDIA}

- USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.

SPECIAL FIRE FIGHTING PROCEDURES:

NOT APPLICABLE.

UNUSUAL FIRE AND EXPLOSION MAZARDS:

NOT APPLICABLE.

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PN 216003150
    SINOGENIC DETERMINATION:
 PK JUST OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
                     "NTP, IARC, OSHA, OR, ACIGH".
 ACCORDING TO :
                             SKN-RBT 50 MG/24H MLD
 PRODUCT TOXICITY DATA:
                         IRR
                         IRR
                             EYE-RBT 100 MG/34H SEV
                             ORL-HMN TOLO:12357 MG/KG/23D-C
                         TOX
                             DRL-RAT LD50: 3000 MG/KG
                         TOX
                             TLM96:QUER 1000 PPM
                         AGU
PRODUCT TLV: 10 MG/M3 (N)
                      ----- EFFECTS OF EXPOSURE
ROUTES OF EXPOSURE:
   EYE OR SKIN CONTACT, INHALATION.
                                                      li n
   MAY BE IRRITATING.
SKIN:
   MAY BE IRRITATING.
INHALATION:
   MAY BE IRRITATING.
INGESTION:
   NO DATA AVAILABLE
CHRONIC EFFECTS:
   NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
    REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
   EXPOSURE TO THIS PRODUCT.
                   * * * SECTION VI - REACTIVITY DATA *
STABILITY: STABLE
CONDITIONS TO AVOID:
   NOT APPLICABLE.
HAZARDOUS DECOMPOSITION PRODUCTS:
   NONE KNOWN.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
   NOT APPLICABLE.
                * * SECTION VII - SPILL OR LEAK PROCEDURES * *
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
   USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALI?
   DUST.
WASTE DISPOSAL METHOD:
   IF NOT CONTAMINATED, REUSE PRODUCT.
   GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.
             - * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * *
RF IRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
  - NOT NORMALLY NECESSARY.
   TOXIC DUST/MIST RESPIRATOR.
UENTILATION:
   USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
  NORMAL WORK GLOVES.
EYE PROTECTION:
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SECTION IX - SPECIAL PRECAUTIONS *_

PRECAUTIONARY LAGELING SALT-CEMENT-GRADE, BULK

516.003150

CAUTION!

MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.

FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:

STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORA AVOID CREATING OR INHALING DUST.

CONTAINER DISPOSITION:

CONTAINER SHOULD BE TRANSPORTED WITH ALL CLOSURES IN PLACE AND RETURNED FOR REUSE.

* * * * SECTION X - TRANSPORTATION INFORMATION * * * * *

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DOT SHIPPING DESCRIPTION: NOT RESTRICTED

+ + + + + SECTION XI - ENVIRONMENTAL EVALUATION + + + + + *

EPA SUPERFUND(SARA) TITLE III - HAZARO CLASSIFICATION & ASSOCIATED INFORMATI FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: MIX

- B. EPA CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
- C. EPA SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
 PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS
 - D. EPA SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
 CHEMICAL CONTAINS NO TOXIC INGREDIENTS
 - E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
 TSCA YES CEPA NE EEC YES ACOIN YES NPRIME DRSM NE
 - H. EPA RORA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

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