RECEIVED

19 November 2009

12:35 pm, Nov 23, 2009

Alameda County Environmental Health

Mr. Jerry Wickham Alameda County Health Care Services Agency Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Subject: Transmittal of Technical Report for Ralph Site-WP Dyer, Alameda County Case No. RO0002627

Dear Mr. Wickham:

Please find attached the above-referenced report for the Ralph Site-WP Dyer site in unincorporated Alameda County prepared by BASELINE Environmental Consulting. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

Chris Dreiman Northern California Area Manager enXco Service Corporation – an EDF Energies Nouvelles Company

B<u>ASELIN</u>**E** ENVIRONMENTAL CONSULTING

19 November 2009 Y9371-00.01346

Mr. Jerry Wickham Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Ralph Site-WP Dyer, Alameda County Case No. RO0002627

Dear Mr. Wickham:

This report presents a summary of the transformer insulation oil release associated with wind farm equipment operated by enXco North America ("enXco") in unincorporated Alameda County (Figure 1). It is our understanding that on 14 June 1999, transformer oil leaked from a transformer that was damaged by a malfunctioning wind turbine. As part of the emergency response, the Alameda County Department of Environmental Health Services ("ACDEHS") was notified. The affected soil was excavated and off-hauled to Altamont Landfill. Soil samples were collected before and after excavation, which showed that soil containing petroleum hydrocarbons (quantified as "oil and grease") at up to 10,000 milligrams per kilogram ("mg/kg") remained in the soil. Further excavation was not viable due to the danger of undermining the structural integrity of the transformer and supporting concrete pad.

In a letter dated 1 September 2006 to FORAS Service Corporation, the predecessor company to enXco, the ACDEHS requested that a technical report be provided to document the site conditions, remedial activities, conclusions regarding current and potential future human health and environmental impacts, and recommends further actions, as appropriate. BASELINE Environmental Consulting ("BASELINE") has prepared this report on the behalf of enXco to satisfy ACDEHS's request.

Transformer Insulating Release

The summary of events described below is based on the Emergency Incident Report and Sequence of Events Report and Action Plans (Attachment A) prepared by FORAS. On 14 August 1999, at about 2:30 PM, one of the main electrical breakers for the wind turbine site tripped, indicating an electrical fault. Two technicians with FORAS responded and found that transformer FAXF0112 ("Transformer 112"), which was mounted on a concrete pad, appeared to have had an internal fault and oil was seeping out of the radiator. One of the wind turbine risers, No. 0558, had experienced an electrical malfunction, and the jumper wire had burned on the pothead, which started a fire. The fire was contained by California Department of Forestry using fire trucks, air tankers, helicopters, and other support vehicles. FORAS notified the California Office of Emergency Services, Livermore Fire Department, and the ACDEHS. FORAS also completed a hazardous Waste Emergency Incident Report in accordance with their emergency response procedures.

It was determined that the cause of oil release was a turbine blade falling and striking the transformer's radiator. The turbine blade cracked the radiator allowing the inhibited transformer oil ("insulating oil") to leak out. The transformer lost an estimated 400 gallons of insulating oil, which caused the transformer to overheat and triggered the electrical fault.

At 6:30 PM on 14 June 1999, FORAS mobilized a backhoe in response to the release. The backhoe operator began excavating and placing the impacted soil on a polyurethane tarp. The excavation of soil was halted at 8:00 PM, presumably due to darkness, and resumed the next day. Excavation of the impacted soil was completed on 17 June 1999 and the soil was covered with a tarp. The depth of excavation ranged from 3.5 feet below ground surface ("bgs") around the transformer pad to 2.0 feet bgs to the east. Approximately 70 cubic yards of soil were excavated.

FORAS collected one soil sample of the excavated stockpiled soil on 17 June 1999, identified as "Dyer Transformer 112", and submitted the sample under chain-of-custody protocol to Chromalab, Inc., a California-certified analytical laboratory. Based on guidance from the ACDEHS, FORAS requested the following analysis:

- Total extractable petroleum hydrocarbons ("TEPH") as mineral oil in accordance with U.S. Environmental Protection Agency ("EPA") Test Method 8015M;
- Total oil and grease in accordance with EPA Test Method 5520E; and
- Polychlorinated biphenyls ("PCBs") in accordance with EPA Test Method 8080A.

A copy of the laboratory report is provided as Attachment B. The laboratory reported that the soil contained 23,000 mg/kg TEPH quantified as mineral oil and 22,000 mg/kg quantified as total oil and grease. No PCBs were reported above the laboratory reporting limits. The reporting limit for individual PCB compounds was 0.050 mg/kg, which is below the San Francisco Regional Water Quality Control Board's ("Water Board") most conservative Environmental Screening Level ("ESL") for PCBs (0.22 mg/kg,).¹

On 21 June 1999, FORAS collected six confirmation soil samples (Samples #2 through #7) from within the excavation to evaluate the effectiveness of the response action (Figure 2). Samples #5 through #7 were collected near the base of the transformer pad. These soil samples were also submitted to Chromalab under chain-of-custody protocol and were analyzed for the following:

- Total oil and grease in accordance with EPA Test Method 5520E; and
- PCBs in accordance with EPA Test Method 8080A.

A copy of the laboratory report is provided as Attachment B. The laboratory reported that the soil samples contained total oil and grease at concentrations ranging from 96 to 10,000 mg/kg. No PCBs were reported above the laboratory reporting limits of 0.05 mg/kg.

¹ Assuming residential land use where groundwater is a current or potential drinking water source. San Francisco Regional Water Quality Control Board ("Water Board"), 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, May, Table A.

The analytical results were provided to ACDEHS. In a letter dated 29 June 1999, Mr. Larry Seto of the ACDEHS indicated that he had reviewed the laboratory test results and noted that two of the samples, Samples #6 and #7 contained petroleum hydrocarbons quantified as total oil and grease, at 6,500 and 10,000 mg/kg, respectively. The correspondence indicates that Mr. Seto was informed that the location where these soil samples were collected could not be over-excavated because further excavation would compromise the structural integrity of the transformer pad. Mr. Seto authorized the backfill of the excavations with clean fill material. According to the Emergency Incident Report prepared by Mr. Paul Smith of FORAS on 21 June 1999 (Attachment A), excavated soil was disposed of at Altamont Landfill.

Site Description

The release site is located within the Altamont Hills, northeast of Livermore, California in unincorporated Alameda County. The elevation of the site is approximately 1,000 feet above mean sea level. This area, known as the Altamont Upland physiographic area, is part of the larger Livermore drainage unit, which occupies the northern and eastern portion of the Alameda Creek watershed. The Altamont upland includes rolling, grass-covered hills and is largely underlain by non-water bearing sandstone, siltstone, and shale of the Great Valley Sequence.^{2,3} The term "non-water bearing" indicates that the groundwater in this formation is insufficient in quality and/or quantity for domestic water production.

Surface water in the Altamont Upland area flows from the ridges down through the valleys and discharges into local drainages. These natural drainages, which are seasonal, ultimately drain toward the San Francisco Bay, when surface water flow is sufficient.⁴

Local hydrology data were obtained from groundwater monitoring conducted at Altamont Landfill, which is located just to the south of the insulating oil release site (Figure 3). The depth to groundwater at the insulating oil release site is estimated to be approximately 100 feet bgs based on publicly available data obtained on the Water Resources Board's Geotracker website. Altamont Landfill has a groundwater monitoring well (B-8, Figure 4) that is located approximately 2,000 feet southwest of the insulating oil release site. Based on the elevation contours from the U.S. Geological Survey Byron Hot Springs Quadrangle map, the elevation of groundwater well B-8 and the ground surface at the insulating oil release site are similar; around 980 to 1,000 feet above mean sea level. The Geotracker website reports that the depth to groundwater measurements in groundwater well B-8 have ranged from 112.68 to 114.72 feet.⁵

The nearest residential receptors are located along Dyer Road to the east, over a mile from the insulating oil release site. The nearest commercial receptor location is Altamont Landfill; the landfill's office buildings are located approximately one mile south of the insulating oil release

² California Department of Water Resources, 1966, Livermore and Sunol Valleys, Evaluation of Ground Water Resources, Bulletin No. 118-2, August.

³ Graymer, R.W., et al., 1966, Preliminary Geologic Map Emphasizing Bedrock Formations in Alameda County, California.

⁴ Information Sheet, Order No. R5-2009-____, Waste Management Of Alameda County, Inc., Altamont Landfill And Resource Recovery Facility, Alameda County.

⁵ Geotracker Website: <u>http://geotracker.swrcb.ca.gov/</u>; Altamont Lf/Resource Recovery (L10005834311), 10840 Altamont Pass, Livermore, Ca 94550.

site. BASELINE requested a nearby well search from Alameda County Zone 7 Water Agency to determine if there were any water supply wells within one-mile of the insulating oil release site. The survey indicated the nearest water supply wells were east of Dyer Road, over a mile from the insulating oil release site (Attachment C).

Inhibited Transformer Oil

Inhibited transformer oil was used in Transformer 112 as a coolant and was released when the radiator was damaged. The oil used in the transformer was manufactured by Pennzoil Products Company and is described in the attached Material Safety Data Sheet ("MSDS") as a light naphthenic hydrotreated distillate (Attachment D). The National Fire Protection Agency has rated this product's health risk as slight. The product is not known to contain any SARA Title III, Section 313⁶ reportable chemicals at or greater than 1.0 percent for non-carcinogens and 0.1 percent for carcinogens.

The composition of mineral oils varies depending on the crude oil source, the refining process and the additives present. The primary human health hazard is from inhalation or ingestion of mineral oil mists. Epidemiological studies of laboratory animals indicates that there is significant evidence that mildly refined mineral oils are carcinogenic, but there is no evidence that severely refined mineral oils are carcinogenic.⁷ The information contained in the MSDS states that "*The international Agency for Research on Cancer has concluded that highly refined mineral oils are Group 3 Substances, not classifiable as to their carcinogenicity to humans.*" The information provided in the MSDS indicates the oil emulsifies in water.

Field Reconnaissance

On 3 November 2009, Mr. James McCarty, a registered professional engineer with BASELINE conducted a field visit to the release site with Mr. Chris Dreiman of enXco. Mr. McCarty did not observe any staining on the surface due to the insulating oil release that occurred in 1999. Transformer 112 is mounted on a concrete pad with the radiator located on the south site (Figure 5). The concrete pad is constructed as a "slab on grade," i.e., does not have a subsurface foundation on any significance. The transformer is located in close proximity to a change in grade (Figure 6), which accounts for the release pattern as shown in Figure 2. The change in grade would have caused oil to flow away from the transformer rather than pooling immediately around the transformer. Subsurface conduits containing high voltage lines were observed to enter the transformer from the east. Mr. Dreiman indicated that the high voltage lines conducted 21,000 volts of electricity.

Conclusion

The release of the transformer insulating oil was successfully contained, primarily by the rapid initial response. Approximately 70 cubic yards of soil were excavated, which sample analysis

⁶ Section 313 Emergency Planning and Community Right-to-Know Act, which is also known as Title III of the Superfund Amendments and Reauthorization Act ("SARA").

⁷ World Health Organization International Agency For Research On Cancer, 1998, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 33, Polynuclear Aromatic Hydrocarbons, Part 2, Carbon Blacks, Mineral Oils (Lubricant Base Oils and Derived Products) and Some Nitroarenes, Summary of Data Reported and Evaluation, 20 April.

indicated contained petroleum hydrocarbons quantified as oil and grease at a concentration of 22,000 mg/kg. Confirmation sampling indicated that the concentrations remaining in the soil ranged from 69 to 10,000 mg/kg. The highest concentrations were observed next to the concrete transformer pad and further excavation was not performed in order to maintain the structural integrity of the pad. In addition, underground high voltage electrical lines would present a challenge for performing further subsurface investigations.

The geology at the site consists of shale and sandstone, which are not considered water-bearing units, i.e., will not produce water in sufficient quantities for domestic consumption. Groundwater level data from a nearby well at Altamont Landfill indicate groundwater is present approximately 100 feet below the release site elevation. There are no nearby residential receptors, commercial receptors, or surface waters.

The transformer oil is a highly refined mineral oil, which is not considered a carcinogenic substance and is not characterized as highly toxic. It is insoluble in water, therefore, unlikely to migrate considerable distances from the original release site. The nearest receptors are approximately one mile away and there are no Zone 7 Water Agency-permitted water supply wells located within one mile.

Recommendation

Based on the summary of the transformer oil release and the available information on both the site conditions and the nature of the contaminant released, this release does not appear to represent a human health or environmental risk. Therefore, it is BASELINE's opinion that this release site is an appropriate candidate for ACDEHS consideration as a low-risk closure.

Should you have any questions or need additional information regarding the data presented in this letter, please do not hesitate to contact us at your convenience.

Sincerely,

un

James McCarty, P.E. Senior Engineer



cc: Chris Dreiman, enXco North America

Attachments: Figures 1 through 6 Attachments A through D **FIGURES**

REGIONAL LOCATION

Figure 1



Transformer Insulating Oil Release Site enXco North America Alameda County, California



Y9371-00.01346.Fig1.cdr 11/11/09

SOIL EXCAVATION and SAMPLE LOCATIONS



enXco North America Alameda County, California

B<u>aselin</u>F.

Y9371-00.01346.Fig2.cdr 11/11/09

TRANSFORMER OIL RELEASE SITE

Figure 3



Transformer Insulating Oil Release Site	
enXco North America	Sý ° N
Alameda County, California	ĩ



Y9371-00.01346.Fig3.cdr 11/11/09



Alameda County, California

BASELINE

Y9371-00.01346.Fig4.cdr 11/11/09

TRANSFORMER 112



Transformer 112, view looking west. Note the radiator which contains the transformer insulating oil on the right hand side.

Transformer Insulating Oil Release Site enXco North America Alameda County, California

B<u>ASELIN</u>**E**

TRANSFORMER 112



Transformer 112, view looking west. Note the grade change which resulted in the oil flowing east and pooling in the flat area below.

Transformer Insulating Oil Release Site enXco North America Alameda County, California

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ATTACHMENT A

EMERGENCY INCIDENT REPORT SEQUENCE OF EVENTS REPORT AND ACTION PLANS

PAGE 02 FORAS DYER SITE 05/20/1999 23:38 9254430227 eres 5'65'62 Aug-22-97 10:30A Briar Ward, Zurich FROM INLATEDR CO D/S H02-0FS 510 737 5755 510 - 74 - 2297 1577, 13 15:25 Chapter 6: Managing Hazardous Wastes On-Site · A Part 3 **Emergency** Incident Report [Form HWM 6-2 (3)] The following report to a report to heaving estimated to the California Department of Tonio 5 may investing behaviour wants purcents to 22 CCR \$66366.5(). d to the California Department of Toxic Substances Control within 15 days After an entering 1. None of Puelly FORAS Service Corporation - WP Dyer Site Address of Pacility: 4595 Der Rom Bate # 17 Tologhous Number: ______ 2. Name of OWNER OPASSEVICE CORDORATION AMARIE 1000 East Grantline Road Tracy CA. 95376 Toinghous Number: (209) 836-1921 Poul 3. Name of Parson Colling: Title: Mongoor Roten Talephone Number: 443-0235 217-8248 4. Description of Heavineys Warts R. a: Iransto 5. Quantity of Material Re adlars pour silons DOXIMA 400 The second s 6. De ormer was Tans' amaar and releason the oil 104 -1999 ... 14:35 AMAN 7. Date June 14 n af b rsons were injured 4305 limt arom he release. 05 There no humans or the environment. Zarels removed. Form HWM 6-2 (3) 1 2

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PAGE 03 06/20/1999 23:38 9254430227 FORAS DYER SITE Aug. 22-97 10:30A Brian Ward, Zurich FROM (A.R. CD D48 NE-075 518 337 5355 P.03 510 F34-2297 1997 -13 15/26 #150 P.03/05 Chapter 6: Managing Hugerdous Westes On-Site A 10. Die sent to the eina removed and and Jiff HITEMONT ! 11. Quantity of Maturial Reservered in Majori soil was 12. Kningener Act CMOULA Mar In Contomb one day of the incident to mith soil. Remaining contaminated soil removed (3) days attor spill. 13. Agannier Notified: JM99 - 17:25 Bill Penninato California Office of ENGRANCY SERVIZ Hma County of Alamada 41499- 17:45 with Robleston of Hamee 615199-08:35 Thomas Kaacock Department of Environmental Health 14. Agencies Responding: a Their Rappense Time of Alamada 415199 -13:25 ZO:00 HES. **Andre** is in instance Kapettilly related. a Manager Smil au Sier Form HWM 6-2 (3) 2012

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Sequence Of Events Report and Action Plans

Site: RALPH SITE-WP DYER, 4595 DYER ROAD GATE #17

Description Of Event: RALPH TRANSFORMER (RAXF0112) Oll Spill	
Interconnecting Utility: PG&E	
Technician: Paul Smith (FORAS), Tom Ryder (FORAS)	
Partnership affectad : WPP 90, WPP 92	

Time Of Occurrence

医裸腺组织性肌肉	
14:30	Ralph Main Breaker Tripped. Operations notified Mike Daniel and Roy Joiner. Windspeed 17-29 mph
14:35	Notified GRS Operations of a fire at near Ralph riser 658. GRS notified CDF.
14:45	Mike and Roy from GRS arrive on site and proceed to fire location, they noticed FORAS crews around RAXF0112, when they arrived thay noticed that RAXF0112 appeared to have had an internal fault and oil was seeping out of the radiators. Mike and Roy continued on to riser 0558 where the fire had initially occurred. They found the jumper wire burned off the pothead, they opened, locked, and tagged the riser switch.
14:50	CDF arrived on site. Fire trucks, Air tankers (2), Helicopter and other support vahicles.
14:55	boom/absorbent mats. Controlled spill.
15:15	Mike and Roy from GRS met with the Fire Chief to get his approval to close the main breaker and feeders back in. He said to wait for the fire inspector.
17:20	CDF controlled fire. Approximately 120 acres.
16:27	Mike and Roy from GRS arrived at the Ralph Substation and found targets on T2 230 line backup relay, they reset targets, closed in Ralph main breaker and feeders 1, 2, and 6. Operations reports communications with all turbines on feeders 1 and 2.
16:45	Contacted John Gandolio and Dan Jess to come to site and start removal of contaminated oil.
17:25	Notified California Office of Emergency Services (OES) of spill. 1 (800) 852-7550. Spoke with Bill Pennington, provided all facts concerning spill. Received control #992535.
17:40	Met with Fire Chief Inspector on site to discuss the reason for the fire. Fire Chief gave approval to close Ralph feeder 4.
17:45	Called County of Alameda, Department of Environmental Health, no answer. Left message on recorder stating facts of spill, 610-567-6700
18:00	Completed Hazardous Waste Emergency Incident Report form (HWM 8-2 (3).
18:03	GRS closed Ralph feeder 4. Operations reports communication with all turbines except for those on riser 558. Windspeed 12-39 mph
18:30	Dan Jess arrived @ site with back hoe. Started excavation of contaminated soil onto polyurethane tarp.

6/22/99

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Sequence Of Events Report and Action Plans

Site: RALPH SITE-WP DYER, 4595 DYER ROAD GATE #17

Date Of Occurrence:	6/14/99
Description Of Event:	RALPH TRANSFORMER (RAXF0112) OII Spill
Interconnecting Utility:	PG&E
Technician:	Paul Smith (FORAS), Tom Ryder (FORAS)
Partnership affected :	WPP 90, WPP 92

Time Of Occurrence

18:30	GRS and FORAS (Paul Smith) met with the Fire Department. Paul explained that the turbine blade had fellen and struck the transformer radiators causing them to crack. Oil seeping out of the cracks. Transformer loosing oil to the point of excessive heating and eventually faulting.
20:00	Stopped soil excavation work for day,
	制作的利用。 和自己的问题,我们就是有一些人们的知道,我们就不是不是不是不是不是不是不是不是,我们就是不是不是不是不是,我们就是不是不是不是不是,我们就是不是不是不是不是不是
8:35	Called County of Alameda, Department of Environmental Health, left message with Thomas Peacock stating facts of splil, control #992535 lesued from (OES) and phone # 1 (925) 443-0235 to return call.
8:50	Contacted Tom Kelley at GRS and requested he send out technicians to locate high- voltage and communication cables underground. Requested GRS to determine if they have a spare 1000 KVA transformer to sell.
13:25	Received call from Thomas Peacock County of Alameda, Department of Environmental Health. Thomas instructed us on requirements for sequence of events report with action plans and Emergency Incident Report (HWM 6-2 (3)). Additionally a check for \$500 made out to County of Alameda must be sent out to cover cost of overseeing spill. County will review report and provide further direction.
14:30	Received call from Larry Seto at County of Alameda, Department of Environmental Health. Larry stated he will be contact person for County of Alameda and will be reviewing our action plan and providing diraction.
13:45	Called Ken Lewis at Altamont Landfill Resources (Landowner) to notify of spill on property. No contact. Left message.
14:00	Dan Jess continued removal of contaminated soil onto polyurathane tarp.
14:10	Contacted Stan Warner at Contra Costa Electric to come to site and survey damage. Will arrive Friday June 18th at 0800.
14:30	Took soil sample #1 (excevated contaminated soil) to Chromalab for testing per Alameda County requirements (TEPH, oil and grease, PCB's)
15:00	Removed transformer RAXF0112 from foundation and transported to Dyer shop area.
18:30	Dan Jess completed removal of contaminated soil around transformer RAXF0112. Covared soil pile with tarp.

6/22/99

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Sequence Of Events Report and Action Plans

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Site:	RALPH SITE-WP DYER, 4595 DYER ROAD GATE #17
Date Of Occurrence:	6/14/89
Description Of Event:	RALPH TRANSFORMER (RAXF0112) OII Spill
Interconnecting Utility:	PG&E
Technician:	Paul Smith (FORAS), Tom Ryder (FORAS)
Partnership affected :	WPP 90, WPP 92

Time Of Occurrence

7:30	Called Ken Lewis at Altamont Landfill Resources (Landowner) to notify of spill on property. No contact. Left message.
8:00	Met with Stan Warner of Contra Costa Electric to survey electrical damage and develop plan for repair. CCE will be on site Monday morning to start repairs.
8:00	Contra Costa Electric on site starting electrical repairs. John Gandolfo on site performing soil excevation for cable repair.
10:30	Took soil samples #2,3,4,5,6,7 (excavated area) to Chromalab for testing per Alameda County requirements (TEPH, oil and grease, PCB's).
16:30	Faxed Sequence of Events Report and Action Plans to Larry Seto at County of Alamada (510) 337-9335.
6/25/99	Verify through Alameda County, acceptable levels of contamination that can be left in ground at spill site.
6/25/99	Submit Emergency incident Report (Form HWM 8-2[3]) to DTSC.
6/25/99	Send soil sample test results to Alameda County (Larry Seto) for review and permission to proceed with clean-up.
6/25/99	Identity Waste Disposal facility and transportation method to dispose of contaminated soil.
6/30/99	Complete and submit waste profile to Waste Disposal facility and obtain permission to dispose.
6/30/99	Dispose of contaminated soil at designated Waste Disposal facility.
6/30/99	Backfill and compact excavated area with clean soil.

6/22/99

ATTACHMENT B

LABORATORY REPORTS

CHROMA	LAB,	INC.
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FORAS DYER SITE

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TEL: 510 484 1096

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P. 001

JUN. - 24' 99 (THU) 17:46 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0255

Date: June 24, 1999

Foras Service 1000 East Grant Line Road Tracy, CA 95376

Attn.: Mr. Paul A Smith

Project: Foras WPP

Dear Mr. Smith,

Attached is our report for your samples received on Thursday June 17, 1999. This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 17, 1999 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

Sincerely.

anylook for

Surinder Sidhu

1220 Querry Lane * Pleasanton, CA 94568-4755 Telephone: (925) 484-1919 * Face(mile: (925) 484-1098

Page 1 of 1

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P. 002

JUN. -24' 99 (THU) 17:46 CHROMALAB, INC.

TEL:510 484 1096 Submission #: 1999-08-0265

CHROMALAB, INC.

Environmental Bervices (SDB)

Total Extractable Petroleum Hydrocarbons (TEPH)

Foras Service	Tracy 95376
	Phone: (925) 443-0235 Fax: (925) 443-0227
Attn: Paul A Smin Broloct #	Project Foras WPP
	Samples Reported

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Sample ID		Soli	06/17/1999 14:30	1
Dyer Transformer 11				•

1220 Querry Lone * Pleasanton, CA 94566-4755 Telephone: (925) 464-1910 * Fecelmile: (925) 464-1095

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Page 1 of 6

PAGE 04

TEL: 510 484 1096

Test Method:

Prep Method:

P. 003

Submission #: 1999-06-0255

8016M

3550/8015M

JUN. -24' 99 (THU) 17:47 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SOB)

To: Forme Service

Attn.: Paul & Smith

Tobal Extractable Patroleum Hydrocarbons (TEPH)

		Lab Sample ID:	1999-06-0255-001
Sample ID:	DAt tunioning of	Received	06/17/1999 16:35
Project.	Foras WPP	Extracted	06/18/1999 12:01
Samolad:	06/17/1999 14:30	QC-Batch:	1999/08/18-03.10
Matrix:	Soli		
Sample/Anal	ysia Flag: ado (Sea Legend & Note section)		
-		in the second second	

Compound	Result	Rep.Limit	Unita	Dilution	Anenyied	rwy
Mineral Oil	23000	600	mg/Kg	50.00	06/22/1999 12:52	
Sumogata(s) o-Terphenyi	NA	80-130	ing/Kg	1.00	06/22/1999 12:52	

Discrete sample of contaminated soil

1220 Quarty Lans * Plassanton, CA 84568-4750 Telephone: (825) 484-1918 * Fecsimile: (926) 484-1098

Printed on: 05/24/1969 17:29

Page 2 of 6

TEL:510 484 1096

P. 004

JUN. - 24' 99 (THU) 17:47 CHROMALAB, INC.

CHROMALAB, INC.

Environmentel Services (\$08)

Submission #: 1999-06-0256

Total Oli & Gresse

4

Fores Service	R 1000 East Grant Line Read , CA Trecy 95376
Aitn: Paul A Smith	Phone: (925) 443-0235 Fax: (925) 443-0227
Project #:	Project: Forse WPP

Semples Reported

Demale ID	 f	Matrix	Date Sampled	Lab #
Sumple ID		Sol	00/17/1999 14:30	1
DARE LERISIONNEL LITE	 			

1220 Querry Lone * Pieccarlon, CA 94565-4756 Telephone: (828) 484-1919 * Fecsivile: (628) 484-1086

Printed on: 05/24/1099 17:31

 $\sum_{i=1}^{n}$

Page 1 of 4

P. 005

JUN. - 24' 99 (THU) 17:48 CHROMALAB, INC.

CHROMALAB, INC.

Environmentel Services (SDB)

- To: Fores Service
- Attn.: Paul A Smith

TEL:510 484 1096

Test Method: 5520 E Prep Method: 5520 E

Submission #: 1999-06-0255

Total Oil & Greese

Semple ID:	Oyer Transfo	mer 112			Leb Semple ID Received:	: 1999-06-02 06/17/1999	16:3 6
Projecti	Fares WPP				Extracted:	06/23/1999	
Sampled: Matrix:	06/17/1999 14 Soli	1:30			QC-Batch:	1999/06/23	.01.23
Compound		Result	Rep.Limit	Units	Diulon	Analyzed	Fiag
Oi & Grease (b	otal)	22000	50	mg/Kg	1.00	06/24/1999	

Discute sample of contaminated soil

1220 Guiling Lune * Plassanton, GA 84565-4755 Telephone: (925) 454-1515 * Facsimila: (925) 454-1098

Printed on: 06/24/1999 17:31

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Page 2 of 4

P. 006

Submission #: 1999-06-0265

JUN. - 24' 99 (THU) 17:48 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SDB)

PQBs

Foras Survice	1000 East Grant Line Road Tracy , CA 95376
Attn: Paul A Smith	Phone: (925) 443-0235 Fex: (925) 443-0227
Project #:	Project: Foras WPP

Samples Reported

Sample ID	Metrix	Date Sampled Lab #
Dyer Transformer 112	Soil	06/17/1999 14:30 1

1220 Quarry Lane * Pleasanton, CA 94568-4768 Talaphone: (925) 484-1819 * FaceInities (925) 484-1096

Printed on; 05/24/1999 17:31

17

Page 1 of 6

* TEL: 510 484 1096

P. 007

Submission #: 1998-06-0265

JUN. -24' 99 (THU): 17:49 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Gervices (SDS)

: Forte Service				Test Metho Prep Math	od: 8080A od: 3550/8080A	
		PC8:				
Sample (D: DVe)	Transformer 112			Lab Samp	le ID: 1999-06-0355	-001
Brainette		•		Received:	05/17/1999 1	5:30
For	1 WPP				66 maile 600 1/	1.4E
		-		Extracted:		₽. ₽₽
Sampled: 06/1	7/1999 14:30			QC-Betch	1999/06/22-0	1.14
kinteles Soll						
Renale/Analysia Sta	en (See Lenend & N	Inte section)				
Semple/Analysis Fl	eg: . (See Legend & M	lote section)				
Sample/Analysis Fit	eg: . (See Legend & M	lote section)	Unita	Dilution	Analyzed	Fia
Sample/Analysis Fa	eg: . (See Legend & N Result ND	Rep.Limit	Units mg/Kg	Dilution 1.00	Analyzed 06/22/1999 20:11	Fia
Sample/Analysis Fa Compound Arocior 1016 Arocior 1221	eg: . (See Legend & M Result ND ND	0.050 0.050	Units mg/Kg mg/Kg	Dilution 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11	Fia
Sampla/Analysis Fa Compound Arocior 1016 Arocior 1221 Arocior 1232	eg: . (See Legend & M Result ND ND ND	0.050 0.050 0.050 0.050	Units mg/Kg mg/Kg	Dilution 1.00 1.00 1.00	Analyzed 05/22/1999 20:11 05/22/1999 20:11 05/22/1999 20:11	Fia
Compound Arocior 1016 Arocior 1221 Arocior 1232 Arocior 1242	eg: . (See Legend & N Result ND ND ND ND	0.050 0.050 0.050 0.050 0.050 0.050	Units mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11	Fla
Semple/Analysis Fa Compound Arocior 1016 Arocior 1221 Arocior 1232 Arocior 1242 Arocior 1248	eg: . (See Legend & N Result ND ND ND ND ND ND	0.050 0.050 0.050 0.050 0.050 0.050 0.050	Units mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 05/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 05/22/1999 20:11	Fla
Semple/Analysis File Compound Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1266	eg: . (See Legend & M Result ND ND ND ND ND ND ND	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050	Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11	Fla
Sample/Analysis Fa Compound Arocior 1016 Arocior 1221 Arocior 1232 Arocior 1242 Arocior 1248 Arocior 1264 Arocior 1264 Arocior 1260	eg: . (See Legend & M Result ND ND ND ND ND ND ND ND ND ND	Rep.Limit 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050	Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11	Fla
Sampla/Analysis File Compound Aroclor 1016 Aroclor 1221 Aroclor 1222 Aroclor 1222 Aroclor 1242 Aroclor 1245 Aroclor 1264 Aroclor 1260 Surrogate(s)	eg: . (See Legend & M Result ND ND ND ND ND ND ND	Rep.Limit 0.050 0.050 0.050 0.050 0.050 0.060 0.060 0.050	Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11	Fia
Sample/Analysis Fa Compound Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1264 Aroclor 1264 Aroclor 1260 Surrogate(s) 2,4,5,6-Tetrachioro-m	eg: . (See Legend & N Result ND ND ND ND ND ND ND ND ND ND ND ND	Rep.Limit 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 50-125	Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Dilution 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Analyzed 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11 06/22/1999 20:11	Fia

Discrete says of contamiled soil

1230 Quarry Late * Pleasanton, CA 94568-4768 Tatephone: (\$25) 484-1919 * Pleasanton: (\$26) 484-1995

Printed on: 08/24/1999 17:31

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Page 2 of 6

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	PROJ. M COMPJ AD(IPH) SAMPLER	GR <u>Haul /</u> VIV FOEDS ESS <u>1000 CR</u> TOCY S (SIGNA)(IRRE) UPL 5 (D)	A Smith Serv ST BIG CA 9	1h ice nT line 5376 9 8	ks 443	PTRONIE I -023 FAX HO. 0227		D (AM W/ D BTEX CHITES		(174-Disse) (EPA 8015M)	TEPE (ETA BUIGA) Mines	FUNCTIANT BULGUEBONS . (EVOCS) (EPA BOLD)	VOLATLE CREANICS NOCA) (ETA 6260)	semuloi ata es de a estoi	TOTAL OR, AND GREASE (EM 3620 2+5, 2+8)	AN	C PLETICOLISATION SCOOL	FNA's by 0 \$270	0 Spec Cond. 0155 0105	LUAT METALS: C4. Cr. Pb. NL. Zn	CAM 17 METALE (ETA SU10/7470/7471)	TOTAL LEAD	DWET. (STLC) DTCLP	O Recordiant Chromian Opd (24 hr hold fine for E20)				MUNDER OF CONTAINERS
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Environm	unial Servi	ceș (SDO)	100 1 5	1 894) -			•	•	•						•••	DATA	: <u>B(</u>	ĮЦ	14	19	MOE .	<u>. </u>	0	·	4
PROJ. WGR PAH CUMPAHY FOI ADURESS 1000 TPAC EAMPLENS (SIGNATURE)	L A. RAS Eqs: y, C	SMI Servic 1 Gra 4 9 S	TH ce mt 4 370	ite Ret		rqfark ancmather fr rfa sg20]	(Malan Kai kati		NOCA (IZA BUO)	XATTLE CRIGANICS OCAI (1994 5290)	urvolatie es A 6270)	TAL OL AND GREASE SA20 L+F, E+F)	A*14		NA's by C using the second sec	Spee, Cand.	et Metals: L Cr. Ps. Ni, Zn	AM 17 METALS PA 801074707471)	DTAL LEAD	DWEL (STLC) DTCLP	Reproduct Chronican pE (24 br hald these for 200)				under of contracting where
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PAGE 12

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FDRAS DYER SITE

9254438227 06/20/1999 23:38

TEL:510 484 1096

PAGE 09

P. 001

JUN. -28'99 (MON) 19:01 .CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SDS)

Submission #: 1999-06-0291 Date: June 28, 1999

Foras Service 1000 East Grant Line Road

Tracy, CA 95376

Attn.: Mr. Paul A Smith

Project: FORAS WPP-RAXF 0112

Dear Mr. Smith,

Attached is our report for your samples received on Monday June 21, 1999. This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 21, 1999 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

Sincerely,

Surinder Sidhu

1220 Querry Lane * Pleasention, CA 84505-4755 Telephone: (825) 484-1818 * Pacelmile: (828) 484-1098

Printed on: 05/25/1899 17:12

Page 1 of 1

TEL:510 484 1096

P. 002

JUN. -28' 99 (MON) 19:02 CHROMALAB. INC.

Submission #: 1999-06-0291

CHROMALAB, INC.

Environmental Services (508)

Total Oil & Grease

Foras Service	1000 East Grant Line Road , CA
Attn: Paul A Smith	95379 Phone: (925) 443-0235 Fax: (925) 443-0227 Bening: EORAS WPP-RAXF 0112
Project #:	Rampies Reported

	are to you the Company of the second se	Matrix	Data Sampled	LEU #
	Sample ID	Sol	06/21/1999 10:30	1
ĭ	#2	50	06/21/1999 10:30	. 2
I	#3	Soil	06/21/1999 10:00	3
1	\$4	Sail	05/21/1998 10:45	
ļ	#5	Soil	08/21/1999 10:44	l g
	#5	Soli	08/21/1999 10.45	· · · · · · · · · · · · · · · · · · ·
	#7			

Confirmatory Samples taken ofter over excavation

1220 Currry Lone * Pleasanton, CA 84555-4755 Telephone (925) 464-1915 * Facelmie: (925) 484-1096

Page 1 of 9

Printed on: 06/28/1999 18:51

P. 003

JUN, -28' 99 (MON) 19:02 CHROMALAB, INC.

TEL:510 484 1096

Submission #: 1999-06-0291

CHROMALAB, INC.

Environmental Services (SDB)

To: Foras Serv	ice
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tin.:	Paul	A :	inith

Total Oil & Greast

Test Method: 5520 E Prep Method: 5520 E

Sample ID:	#2				Lab Sample I Received:	D: 1999-06-029 06/21/1999 1	1-001 4:15
Project: FORAS WPP-RAXE 0112 Sampled: 08/21/1999 10:30				Extracted: QC-Batch:	06/23/1999 1998/05/23-	01.23	
Matrix;	304 	,		Links (Dilution	Anelyzed	F
Compound		Recutt	Kep.Lima		4 00	06/24/1999	
	(text = 1)	96	50	mg/Kg	7,00		

1220 Quany Line * Plansenton, GA \$4565-4759 Telephone: (\$25) 454-1919 * Faceknile: (\$25) 484-1096

Page 2 of 9

Printed on: 05/25/1999 18:51

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P. 004

JUN. -28' 99 (MON) 19:03 CHROMALAB, INC.

TEL:510	484	1096	
1777.414	1.4.1		

Test Method:

Prop Method:

Submission #: 1999-06-0291

5520 E

6620 E

CHROMALAB, INC.

Environmental Services (508)

Printed on; 08/28/1999 18:61

Total Oil & Gresse

· · · · · · · · · · · · · · · · · · ·					Lab Sample ID:	1999-06-029	1-002
Sample ID:	#3				Received:	06/21/1999 1	14:15
Project: FORAS WPP-RAXF 0112				Extracted:	06/23/1999 4000/06/23-01-23		
Sampled: Matrix:	06/21/1999 1 Soil	05/21/1999 10:30 Soil			QC-Batch:	1989/0012 0 110	
		Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Gresse (iolal)	1200	50	mg/Kg	1,00	Q5/24/1999	

1220 Querry Lone * Pleasanton, CA 94995-4759 Telephone: (925) 454-1818 * Fecelmile: (925) 494-1055

Page 3 of 9

TEL:510 484 1396

Test Mathod:

Frep Method:

P. 005

Submission #: 1999-06-0291

5520 E

6520 E

JUN. -28' 99 (MON) 19:03 CHROMALAB, ING.

CHROMALAB, INC. Environmental Services (SDB)

Forss Service To:

Altr.: Paul A Smith

Total OII & Greate

Project:	FORAS WPP-RAXE 0112				Extracted:	06/23/1599 06/23/1599 1999/06/23-01.23	
Sampled: Matrix:	06/21/1999 10:04 Soli	0	والمتعادية والمعادية		······································	A a n b secord	Flac
General	a	Result	Rep.Limit	Units	Dilution	Analyzeia	
ramnnung						AA/54/1000	

1220 Querry Lane * Pleasanton, CA 94508-4780 Telephone: (925) 484-1919 * Fecsimile: (925) 484-1099

Page 4 of 9

Printed on: 05/24/1999 18:51

TEL:510 484 1096

Test Method:

Prep Method: 5520 E

P. 006

JUN. - 28' 99 (MON) 19:04 CHROMALAB, INC.

Submission #: 1999-05-0291

5520 E

CHROMALAB, INC.

Environmental Services (SDS)

To: Forse Service

Attn.: Paul A Smith

Total Oil & Greese

Sample ID:	#5				Leb Sample I	D: 1999-08-021 06/21/1999	14:15
Project:	FORAS WI	P-RAXF 0112	Extracted:	Q6/23/1999			
Sampled: Matrix:	06/21/1999 Soli	10:45			QC-Batch:	1990/08/23	.01.23
		Rout	Rep.Limit	Units	Dilution	Analyzed	Fing
	(otal)	530	50	mg/Kg	1.00	06/24/1999	

1220 Querry Lane * Pleasanton, CA 84686-4759 Telephone: (925) 484-1919 * Facsimile: (925) 484-1080

Page 6 of B

Printed on: 09/28/1999 16:51

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TEL: 510 484 1096

P. 007

JUN. -28 99 (MON) 19:04 CHROMALAB, INC.

Submission #: 1998-05-0291

CHROMALAB, INC.

Environmentel Bervices (SDB)

Test Method:	5520 E
Prep Method:	5620 E

Sample ID: # Project: Sampled:	#5 FORAS WPP- 06/21/1999 10	RAXF 0112			Lab Sample ID Received: Extracted: QC-Betch:	1999-06-0291-009 08/21/1999 14:15 05/23/1999 1999/05/23-01.23	
Matrix	Soil			1 11-11-1	Ditution	Analyzed	Fle
Compound		Result	Rep.Limit		CARACION		
OH & Grease ((otal)	6500	50	mg/Kg	1.00	08/24/1999	

Total Oil & Gresse

1220 Querry Lane * Placembur, CA 94598-4726 Telephone: (928) 484-1919 * Pacakreis: (926) 484-1099

Page 6 of 9

Printed on: 06/28/1999 18.51

TEL:510.484 1096

Test Method:

Prep Method:

PAGE 16

P. 008

Submission #: 1999-06-0291

5520 E

6520 E

JUN. - 28' 99 (MON) 19:05 CHROMALAB, INC.

CHROMALAB, INC.

Equironmental Bervices (SDB)

To: Forse Service

Attn.: Paul A Smith

Total	O d		Grenië
	U 3	-	

Sample 10.	87				Lab Sample ID: Received:	1999-06-029 08/21/1999 1	1-005 4:15
Project:	FORAS WP	P-RAXE 0112	Extracted: 06/23/16 QC-Batch: 1999/05				01.23
Sampies. Matrix:	Soil						
Commund		Result	Rep.Limit	Units	Dilution	Anelyzed	
Oil & Grease /	lotal)	10000	50	mg/Kg	1.00	05/24/1999	

.

1220 Guarry Lane * Plepeantian, GA 94585-4758 Yelephone: (926) 494-1919 * Fecabrille: (925) 494-1096

Printed on: 08/28/1999 18:51

Page 7 of 9

TEL: 510 484 1096

Test Method:

Prep Method:

P. 009

Submission #: 1999-06-0291

8080A

3650/8080A

JUN. -28' 99 (MON) 19:05 CHROMALAB, 1NG.

CHROMALAB, INC.

Environmental Services (SDB)

To: Fores Service

Attn.: Paul A Smith

PCBs

Camata ID.	#2	N			Lab Sampla	ID: 1999-06-029	1-001
oampe iu:	~ -				Receives:	06/21/1999 1	a:15
Proječi:	FORAS WPP-R	XXF 0112			Extracted:	05/24/1999 1	5:33
Sampled: Matrix:	06/21/1999 10% Spil	30			QC-Betch:	1999/06/24-(, 14
		Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Compound			0.050	me/Ka	1.00	06/25/1999 15:00	Y
voclor 1016		ND	0.050	ma/Ka	9.00	08/25/1999 18:00	٩
rocior 1221			0 050	mg/Ka	1.00	08/25/1999 18:00	٩
rector 1232			0.050	mg/Kg	1.00	06/25/1999 15:00	1
rocior 1242			0.050	ma/Ka	1.00	08/25/1999 16:01	3
rocior 1248			0.050	ma/Ka	1.00	106/26/1999 16:04	1
Arocior 1254			n 650	me/Ka	1.00	06/25/1999 15:00	U I
Aracior 1260	, .		9.000		ł		·
Surrogate(s)		1			1 00	06/25/1999 18:04	2
4.5.6-Tetraci	hioro-m-xylene	107.9	60-125	70	1 00	05/25/1999 16:04	1
Decachiorobio	henyl	50.0	45-142	170	1.00		7

1220 Querry Lune * Pleasanton, CA 94508-4756 Telephone: (925) 454-1919 * Facalitile: (925) 484-1096

Page 2 of 11

Printed on: 08/28/1999 18:54

To:

FORAS DYER SITE

P. 010

JUN. - 28' 99 (MON) 19:06 CHROMALAB, INC.

Foras Service

Adn.: Paul A Smith

CHROMALAB, INC.

Environmental Services (508)

Submission #: 1999-06-0291

Test Method: 6080A

Prep Method: 3550/8080A

Samola ID:	#3				Leb Samp	e ID; 1999-06-0251	-002
Curripie isi					Received:	06/21/1999 1	4:15
Projecti	FORAS WPP-I	RAXE 0112			Extracted: OC-Batch	06/24/1999 1	5:33 5.14
Sampled: Matrix:	08/21/1999 10: Soli	30					
Compound		Result	Rep.Limit	Unita	Dilution	Analyzed	Fiag
Amolor 1016	· · · · · · · ·	ND	0.050	mg/Kg	1.00	06/25/1999 16:41	
ameior 1221		NO	0.050	mg/Kg	1.00	06/25/1999 18:41	
America 1232		ND	0.050	mg/Kg	1.00	06/28/1999 16:41	
		ND	0.050	mg/Kg	1.00	06/25/1999 18:41	
AIGGIOI 1246		ND	0.060	mg/Kg	1.00	06/25/1999 18:41	
Amplet 1254		ND	0.050	mg/Kg	1.00	06/25/1999 16:41	
Arecier 1260		ND	0.050	mg/Kg	1.00	06/26/1999 16:41	
Surrogate(s)		· · ·	F0 405	ġr.	1 00	06/25/1099 15:41	
2,4,5,6-Teirachi	oro-m-xylene	79.1	00-123	10	1.00	06/25/1999 16:41	
Decachlorobipht	anyi	90.2	45-142	76	1.00		

PCBs

1220 Oueny Lone * Pleasanton, CA 84586-4759 Telephone: (925) 484-1919 * Facelinika: (926) 484-1096

Printed on: 08/26/1929 18:54

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TEL:510 484 1096

Test Method:

Prep Method:

PAGE 19

P. 011

JUN. -28' 99 (MON) 19:06 CHROMALAB. INC.

Submission #: 1999-06-0291

8090A

3550/8080A

CHROMALAB, INC.

Environmental Services (SDB)

To: Forse Service

Atta: Paul A Smith

PCBe

Sample (D: #4				Lab Samp	(e ID: 1999-06-025	1-001
Roject				Received;	06/21/1999 1	4:15
FQI	RAS WPP-RAXF 0112			Extracted:	05/24/1999 1	6:33
Samp ied: 06/2 Matrix: Soli	21/1999 10:00			QC-Betch	1999/05/24-4)5.14
Cempound	Result	Rep.Limit	Units	Dilution	Analyzed	Fia
Arodor 1016	IND	0.050	mg/Kg	1.00	06/25/1999 17:15	ļ
Aroclor 1221	ND	0.050	mg/Kg	1.00	06/25/1999 17:15	l.
Aroclor 1232	ND	0.050	mg/Kg	1.00	06/25/1989 17:15	١
Arodor 1242	ND	0.050	mg/Kg	1,00	05/25/1999 17:15	ŧ.
Arecior 1248	ND	0.050	ma/Ka i	1.00	08/26/1999 17 15	. 1
Aroclar 1254	NĎ	0.050	mg/Kg	1,00	08/25/1999 17:15	1
Aroclor 1280	ND	0.050	mg/Kg	1.00	06/25/1999 17:15	1
Surrogeto(1)		ļ				l
2,4,5,5-Tetrachioro-n	n-xylene 83 3	50-125	%	1.00	05/25/1999 17:15	۲
Decachlorobinhanvl	84.0	48-142	%	1,00	08/26/1999 17:15	ין

1220 Quality Lone * Placesition, CA 94599-4758 Telephone: (925) 494-1919 * Facelinile: (925) 484-1095

Printed on: 06/28/1999 18:54

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TEL: \$10 484 1096

Test Method:

Prep Method:

PAGE 20

P. 012

JUN. -28' 99 (MON) 19:07 GHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-05-0291

8060A

3550/8080A

Foras Service

To: Foras Service Atin.: Paul A Smith

PCEs

Sample ID: #5			,	Lab Samp Received:	le ID: 1999-06-02 9 06/21/1999 1	1-004 4:15
FORAS I	WPP-RAXF 0112		•	Extracted:	05/24/1999 1	5;33 15.14
Sempled: 06/21/19 Matrix: Soll	99 10:45					
Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Arociar 1018	DN	0.060	mg/Kg	1.00	06/26/1999 15:29	
Aroctor 1221	ND	0.050	mg/Kg	1.00	06/26/1999 15:29	
Arocior 1232	. IND	0.050	mg/Kg	1.30	06/25/1999 15:29	l
Aroclor 1242	ND	0.050	mg/Kg	1.00	06/25/1999 15:29	
Aroclar 1248	ND	0.050	mg/Kg	1.00	06/26/1999 15:29	
Arosicr 1254	ND	0.050	mg/Kg	1.00	06/25/1999 15:29	
Araciar 1260	ND	0.050	mg/Kg	1.00	08/25/1999 15:29	
Surrogate(s)				1.00	08/26/1000 15-20	
2,4,5,6-Tetrachipro-m-XVI	ne 111.4	50-125	70	1.00	08/25/1999 15:29	
Decachlorobiphenyl	134.4	46-142	%	1.00	08/25/1999 15:29	

1220 Quarry Lane * Plasannon, CA 84558-4755 Telephone: (926) 484-1919 * Facsimile: (928) 484-1995

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PAGE 21

P. 013

JUN. -28' 99 (MON) 19:07 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (\$DB)

Fores Service To:

το,	1 \$180 \$41 FLAM
Attn.:	Paul A Smith

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Pre	p N	ļ

TEL:510 484 1096

8080A Test Method:

Submission #: 1992-05-0291

3560/8080A Nethod:

Sample ID: #6				Lab Sempl	e (D: 1999-06-029	1-005
Project				Received:	06/21/1999 1	4:15
FORA	SWPP-RAXF 0112			Extracted: QC-Batch:	05/24/1999 1 1999/05/24-0	5:33 5.14
Matrix: Soil				<u>المراجع المراجع المراجع</u>		
Compound	Result	Rep.Limit	Units	Ollution	Analyzed	Fiad
Aroclor 1016	NO	0.050	mg/Kg	1.00	06/25/1999 17:45	1
Arodor 1221	ND	0.050	mg/Kg	1.00	05/25/1999 17:46	
Arodor 1232	ND	0.050	mg/Kg	1.00	05/25/1999 17:48	ļ
Arador 1242	ND	0.050	mg/Kg	1.00	06/25/1999 17:48	1
Arodar 1245	ND	0.050	mg/Ka	1.00	06/25/1999 17:48	!
Aredor 1254	ND	0.050	mg/Kg	1,00	08/28/1999 17:48	1
Aradar 1280	ND	0.050	mg/Kg	1.00	08/25/1999 17:4B	
Surrogate(s)) 12/25/1000 17·40	1
2,4,5,6-Tetrachioro-m-x	rylene 119.0	50-125	76	1.00	00/20/1888 1/140	1
Decachiorobiphenyl	- 101.8	46-142	5	1.00	CONCOLLERAR J 1:40	l

PCSe

1220 Quarry Lane * Pleasanton, CA 84585-4786 Telephone: (820) 484-1913 * Facshnila: (920) 484-1098

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TEL:510 484 1096

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P. 014

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JUN. - 28' 99 (MON) 19:08 CHROMALAB, INC.

CHROMALAB, INC.

Environmental Services (SDP)

Submission #: 1999-08-0291

Yo:	Foras Service
Attn.:	Paul A Smith

Test Method:	8080A
Prep Method:	3550/8080A

Sample ID:	#7				Lab Semple	ID: 1999-06-029	800-1
Project:					Received:	06/21/1999 1	4:15
•	FORAS WPP-	LAXF 0112			Extracted:	06/24/1999 1	6:33
Sampled: Matrix;	06/21/1999 10: Soli	45			QC-Betch:	1999/08/24-0	5.14
Compound		Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Arocior 1016	<u> </u>	ND	0.050	mg/Kg	1.00	08/25/1999 18:22	
Aroclor 1221		ND	0.050	mg/Kg	1.00	06/25/1999 18:22	
Anacior 1232		ND	0.050	mg/Kg	1.00	06/25/1999 18:22	
Araclor 1242		DND	0.050	mg/Kg	1.00	06/25/1999 18:22	
Araciar 1248		ND	0,060	mg/Kg	1.00	06/25/1999 18:22	
Aracier 1264		ND	0.050	mg/Kg	1.00	08/25/1999 18:22	
Anociar 1260		ND	0.050	mp/Kg	1.00	06/25/1999 18:22	
Surrogate(s)	vo.m.viene	68 S	50-125	*	1.00	05/25/1999 18:22	
Decachtorobiphe	siy) Siyi	438.0	45-142	%	1.00	06/25/1999 19:22	

PCBs

1220 Querry Lane * Pleasanton, CA \$4566-4786 Telephone: (925) 484-1919 * Facernilo: (925) 484-1098

Printed on: 06/28/1999 18:54

Page 7 of 11

ATTACHMENT C

WELL LOCATION MAP



ATTACHMENT D

MATERIAL SAFETY DATA SHEET

FPL MSDS 1521.1500

Server Mart Band Mart 1997 - Contract Contract		an a	CAS Mumbers	
Manufacturer's Name	PENNZOIL COMPANY		MSDS Code: 0080	50
Address	P.O. BOX 2967 HOUSTON, TEXAS 772	252-2 96 7	NFPA Hazard Degree of Hazard	Identification Hazard Ratings
			Health: 1 Fire: 1	0 - Least 1 - Slight 2 - Moderate 3 - High
Emergency Telephone No.	(713) 236-6070	<u> </u>	Reactivity: 0	4 - Extreme
Trade Name	INHIBITED TRANSFO	RMER OIL		
Synonyms	PETROLEUM HYDROCAI	RBON DISTILLATE.		and Burder (1993)
		PERCENTAGE MIN MAX	COMPONENT EXPOSURE LIMITS	UNITS
IGHT NAPHTHENIC HYDROTRE	EATED DISTILLATE	95.00 TO 100.00	OSHA PEL Acgih TLV	NO LIMIT NO LIMIT
TRADE SECRET		. 1.700	ACOIN TLY	
		ing the second	est instant brand national factor and a substant sole share and a substant sole sole and a substant sole sole a	
anto de la Tolino a de La Galanza da	ele guille i dente el cuite comencello inte Comence político y de la cuite de la cui			
and the second second second second second		austreace weillichte Alextriciters de Hallithing		
	commences and the state of the state of the			

UN IMPLIED RESERVING IN A CONTROL OF THE SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS SUCH USE DOES NOT INFRINGE ANY PATENT. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS OF USE BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, WE DO NOT ASSUME ANY RESPONSIBILITY FOR THE RESULTS OF SUCH APPLICATION. THIS INFORMATION IS FURNISHED UPON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS OWN DETERMINATION OF THE SUITABILITY OF THE MATERIAL FOR HIS PARTICULAR PURPOSE.

REQUIRED UNDER USDL SAFETY AND HEALTH REGULATIONS FOR SHIP REPAIRING, SHIPBUILDING, AND SHIPBREAKING (29 CFR 1915, 1916, 1917).

MSDS CODE: 008050	PRODUCT: INHIBITED TRANSFORMER OIL	PAGE 2 OF 6
EYE CONTACT	THIS PRODUCT IS PRACTICALLY NON-IRRITATING TO THE EYES UPON DIRECT CONTACT. TESTING OF SIMILAR PRODUCTS AND/OR COMPONENTS.	BASED ON
SKIN CONTACT	AVOID SKIN CONTACT. THIS PRODUCT MAY CAUSE SLIGHT SKIN IRRITATION UPON DIREC BASED ON TESTING OF SIMILAR PRODUCTS AND/OR COMPONENTS. PROLONGED OR REPEATE RESULT IN CONTACT DERMATITIS WHICH IS CHARACTERIZED BY DRYNESS, CHAPPING, AN THIS CONDITION MAY MAKE THE SKIN MORE SUSCEPTIBLE TO OTHER IRRITANTS, SENSIT DISEASE. PROLONGED OR REPEATED CONTACT MAY RESULT IN OIL ACNE WHICH IS CHARA BLACKHEADS WITH POSSIBLE SECONDARY INFECTION. CONSTITUENTS OF THIS PRODUCT H ASSOCIATED WITH PHOTOSENSITIVITY, AN ABNORMAL SENSITIVITY OF SKIN TO SUNLIGH DATA SECTION BELOW.	T CONTACT. D CONTACT MAY D REDDENING. IZERS, AND CTERIZED BY AVE BEEN T. SEE HEALTH
INHALATION	THIS PRODUCT HAS A LOW VAPOR PRESSURE AND IS NOT EXPECTED TO PRESENT AN INHA AT AMBIENT CONDITIONS. CAUTION SHOULD BE TAKEN TO PREVENT AEROSOLIZATION OR THIS PRODUCT. THE PERMISSABLE EXPOSURE LIMIT (PEL) AND THRESHOLD LIMIT VALUE THIS PRODUCT AS OIL MIST IS 5 MG/M3. EXPOSURES BELOW 5 MG/M3 APPEAR TO BE WI SIGNIFICANT HEALTH RISK. THE SHORT-TERM EXPOSURE LIMIT FOR THIS PRODUCT AS A 10 MG/M3.	LATION HAZARD MISTING OF (TLV) FOR THOUT N OIL MIST IS
INGESTION	DO NOT INGEST. INGESTION IS RELATIVELY NON-TOXIC UNLESS ASPIRATION OCCURS. A LEAD TO CHEMICAL PNEUMONITIS WHICH IS CHARACTERIZED BY PULMONARY EDEMA AND H MAY BE FATAL. SIGNS OF LUNG INVOLVEMENT INCLUDE INCREASED RESPIRATORY RATE, HEART RATE, AND A BLUISH DISCOLORATION OF THE SKIN. COUGHING, CHOKING, AND G OFTEN MOTED AT THE TIME OF ASPIRATION. GASTROINTESTINAL DISCOMFORT MAY DEVE BY VOMITTING WITH A FURTHER RISK OF ASPIRATION. THIS PRODUCT HAS LAXATIVE PR MAY RESULT IN ABDOMINAL CRAMPS AND DIARRHEA. SEE HEALTH DATA SECTION BELOW.	SPIRATION MAY Emorrhage and Increased Agging are Lop, followed Operties and
HEALTH DATA	ON RARE OCCASIONS, PROLONGED AND REPEATED EXPOSURE TO OIL MIST POSES A RISK DISEASE SUCH AS CHRONIC LUNG INFLAMMATION. THIS CONDITION IS USUALLY ASYMPT RESULT OF REPEATED SMALL ASPIRATIONS. SHORTNESS OF BREATH AND COUGH ARE THE SYMPTOMS. THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER HAS CONCLUDED THAT HIGHLY RE OILS ARE GROUP 3 SUBSTANCES, "NOT CLASSIFIABLE AS TO THEIR CARCINOGENICITY T BASED ON INADEQUATE HUMAN AND INADEQUATE ANIMAL EVIDENCE. THIS SUBSTANCE IS CARCINOGENIC ACCORDING TO THE OSHA HAZARD COMMUNICATION STANDARD.	DF PULMONARY OMATIC AS A MOST COMMON FINED MINERAL D HUMANS," NOT

ISDS CODE: 008050	
EYE CONTACT	IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER AND CONTINUE FLUSHING UNTIL IRRITATION SUBSIDES. IF MATERIAL IS HOT, TREAT FOR THERMAL BURNS AND TAKE VICTIM TO HOSPITAL IMMEDIATELY.
SKIN CONTACT	REMOVE CONTAMINATED CLOTHING. WASH CONTAMINATED AREA THOROUGHLY WITH SOAP AND WATER. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION. IF MATERIAL IS MOT, SUBMERGE INJURED AREA IN COLD WATER. IF VICTIM IS SEVERELY BURNED, REMOVE TO A HOSPITAL IMMEDIATELY.
INHALATION	THIS MATERIAL MAS A LOW VAPOR PRESSURE AND IS NOT EXPECTED TO PRESENT AN INMALATION EXPOSURE AT AMBIENT CONDITIONS.
INGESTION	DO NOT INDUCE VONITING. DO NOT INDUCE VOMITING DUE TO ASPIRATION HAZARD. IF VOMITING OCCURS LOWER HEAD BELOW KNEES TO AVOID ASPIRATION. SEEK MEDICAL ATTENTION. SEEK IMMEDIATE
	MEDICAL ATTENTION.

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SDS CODE: 008050	PRODUCT: INHIBITED TRANSFORMER CAL
entreportunidades de la compositivada en la compositivada en la compositivada en la compositivada en la compos Esta en la compositivada en la c	
EYE PROTECTION	EVE PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF MATERIAL IS HANDLED SUCH THAT IT COULD BE SPLASHED INTO EVES, WEAR PLASTIC FACE SHIELD OR SPLASH-PROOF SAFETY GOGGLES.
SKIN PROTECTION	NO BKIN PROTECTION IS REQUIRED FOR SINGLE, SHORT DURATION EXPOSURES. FOR PROLONGED OR REPEATED EXPOSURES, USE IMPERVIOUS CLOTHING (BOOTS, GLOVES, APRONS, ETC.) OVER PARTS OF THE BODY SUBJECT TO EXPOSURE. IF HANDLING HOT MATERIAL, USE INSULATED PROTECTIVE CLOTHING (BOOTS, GLOVES, APRONS, ETC.). LAUNDER SOILED CLOTHES. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES INCLUDING SHOES, WHICH CANNOT BE DECONTAMINATED.
RESPIRATORY PROTECTION	RESPIRATORY PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS MEATED OR HANDLED, USE AN ORGANIC VAPOR RESPIRATOR WITH A DUST AND MIST FILTER. ALL RESPIRATORS MUST BE NIOSH CERTIFIED. DO NOT USE COMPRESSED OXYGEN IN HYDROCARBON ATMOSPHERES.
VENTILATION	IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED, ADEQUATE VENTILATIO IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE MUST BE PROVIDED TO MAINTAIN CONCENTRATIONS BELOW THE SPECIFIED EXPOSURE OR FLAMMABLE LIMITS.
OTHER	CONSUMPTION OF FOOD AND BEVERAGE SHOULD BE AVOIDED IN WORK AREAS WHERE HYDRCCARBONS ARE PRESENT. ALWAYS WASH HANDS AND FACE WITH SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING.

1990 😽 AN (2013)				
	and the second second second second	antala parten a di Andre	the Area of Source in the	an a
FLASH POINT 300	F		TEST METHOD	c.o.c.
AUTOIGNITION TEM	PERATURE NO DATA		TEST METHOD	NO DATA
	S IN AIR % BY VOL	LOWER N/A		UPPER N/A
EXTINGUISHING MEDIA	USE DRY CHEMICAL, F	DAM, OR CARBON DIOX	IDE .	
SPECIAL FIRE FIGHTING PROCEDURES	WATER MAY BE INEFFE CAUTION SHOULD BE E SPRAYED INTO CONTAI	CTIVE BUT CAN BE US XERCISED WHEN USING NERS OF HOT, BURNIG	BED TO COOL CON G WATER OR FOAM NG LIQUID,	TAINERS EXPOSED TO HEAT OR FLAME. AS FROTHING MAY OCCUR, ESPECIALLY
UNUSUAL FIRE AND EXPLOSIVE CONDITIONS	DENSE SMOKE MAY BE Oxides May be gener	GENERATED WHILE BU RATED AS PRODUCTS O	RNING. CARBON P F COMBUSTION.	KONOXIDE, CARBON DIOXIDE, AND OTHER
UNUSUAL FIRE AND EXPLOSIVE CONDITIONS	DENSE SMOKE MAY BE OXIDES MAY BE GENER	GENERATED WHILE BU RATED AS PRODUCTS O	RNING. CARBON P F COMBUSTION.	NONOXIDE, CARBON DIOXIDE, AND OTHER
UNUSUAL FIRE AND EXPLOSIVE CONDITIONS	DENSE SHOKE MAY BE OXIDES MAY BE GENER IIVITY DATA STABLE	GENERATED WHILE BU RATED AS PRODUCTS O	NONE	NONOXIDE, CARBON DIOXIDE, AND OTHER
UNUSUAL FIRE AND EXPLOSIVE CONDITIONS VII REAC STABILITY (THERMAL, LIGHT, ETC.) HAZARDOUS POLYMERIZATION	DENSE SMOKE MAY BE OXIDES MAY BE GENER IIVITY DATA STABLE WILL NOT OCCUR	GENERATED MHILE BU RATED AS PRODUCTS O	IRNING, CARBON P F COMBUSTION. NONE	KONOXIDE, CARBON DIOXIDE, AND OTHER

TEPS TO BE CON AKEN IF IN ATERIAL IS SPI ELEASED OR APE PILLED CON	BULT HEALTH EFFECT INFORMATION IN 1 SECTION V, FIRE PROTECTION INFORMAT NOTIFY APPOPRIATE AUTHORITIES OF LL TO ENTER SEWERS OR WATERCOURSES ROPRIATE INERT NATERIAL SUCH AS SAI JUUM PUMPS, SHOVELS, BUCKETS, OR OTI ITAINERS.	BECTION III, PERSONAL HEALTH TION IN SECTION VI, AND REACT SPILL. CONTAIN SPILL INMED REMOVE ALL SOURCES OF IGNI ND, CLAY, ETC. LARGE SPILLS HER MEANS AND PLACED IN DRUMS	PROTECTION INFORMATION IVITY DATA IN SECTION ATELY. DO NOT ALLOW ION. ABSORE WITH MAY BE PICKED UP USING OR OTHER SUITABLE
TEPS TO BE CON AKEN IF IN ATERIAL IS SPI ELEASED OR APE PILLED CON	BULT HEALTH EFFECT INFORMATION IN 1 SECTION V, FIRE PROTECTION INFORMAT NOTIFY APPROPRIATE AUTHORITIES OF LL TO ENTER SEWERS OR WATERCOURSES ROPRIATE INERT MATERIAL SUCH AS SAI JUUM PUMPS, SHOVELS, BUCKETS, OR OTI ITAINERS.	SECTION III, PERSONAL HEALTH TION IN SECTION VI, AND REACT SPILL CONTAIN SPILL INNEDI REMOVE ALL SOURCES OF IGNI ND, CLAY, ETC LARGE SPILLS HER HEANS AND PLACED IN DRUMS	PROTECTION INFORMATION IVITY DATA IN SECTION ATELY. DO NOT ALLOW ION. ABSORG WITH MAY BE PICKED UP USING OR OTHER SUITABLE
ASTE DISPOSAL AL SP ETHOD CA MI TR AT	L DISPOSALS MUST COMPLY WITH FEDERA ILLED OR DISCARDED, MAY BE A REGULA UTION' IF REGULATED SOLVENTS ARE U XTURE MAY BE REGULATED. DEPARTMENT ANSPORTING THIS MATERIAL WHEN SPILL AN APPROVED FACILITY. MATERIALS SH	LL, STATE, AND LOCAL REGULATI TED WASTE. REFER TO STATE AN SED TO CLEAN UP SPILLED MATE OF TRANSPORTATION (DOT) REGULED, WASTE MATERIAL MAY BE LA HOULD BE RECYCLED IF POSSIBLE	ONS. THE MATERIAL, IF D LOCAL REGULATIONS. RIAL, THE RESULTING WASTE LATIONS MAY APPLY FOR NDFILLED OR INCINERATED
ANDLING AND DO TORAGE RI REQUIREMENTS 1	D NOT TRANSFER TO UNMARKED CONTAINE PEN FLAME, OR OXIDIZING MATERIALS. EGULATIONS. FIRE EXTINGUISHERS SHOU 910.106FLAMMABLE AND COMBUSTIBLE	RS. STORE IN CLOSED CONTAINE THIS PRODUCT IS NOT CLASSIFI LD BE KEPT READILY AVAILABLE LIQUIDS.	RS AWAY FROM MEAT, SPARKS, ED AS MAZARDOUS UNDER DOT SEE NFPA 30 AND OSHA
ADDITIONAL INFORMATION	THIS MIXTURE MAY BE FORMULATED IN PA HANY INSTANCES, ESPECIALLY WHEN PRO COMPANY MUST RELY UPON THE HAZARD E MAT PRODUCT'S MANUFACTURER OR IMPO THIS PRODUCT IS NOT KNOWN TO CONTAI AT OR GREATER THAN 1.0% (0.1% FOR C ALL INGREDIENTS OF THIS PRODUCT ARE INVENTORY.	ART WITH COMPONENTS PURCHASED PRIETARY OR TRADE SECRET MATE VALUATION OF SUCH COMPONENTS RTER. N ANY SARA TITLE III, SECTION ARCINOGENS). LISTED ON THE TOXIC SUBSTANC	FROM OTHER COMPANIES. I RIALS ARE USED, PENNZOIL SUBMITTED TO PENNZOIL BY 313 REPORTABLE CHEMICALS CES CONTROL ACT (TSCA)
THE PHYSICAL	PROPERTIES AND THE SHOEF F	PERCENT VOLATILE	N/A
BOILING POINT	PROPERTIES	PERCENT VOLATILE	N/A
PHYSICAL BOILING POINT MELTING POINT	PROPERTIES IBP 580 F EP 670 F POUR POINT < - 50 F	PERCENT VOLATILE VAPOR DENSITY (AIR = 1) EVAPORATION RATE (EE = 1)	N/A N/A N/A
BOILING POINT MELTING POINT APPEARANCE	PROPERTIES	PERCENT VOLATILE VAPOR DENSITY (AIR = 1) EVAPORATION RATE (EE = 1) SPECIFIC GRAVITY	N/A N/A N/A .89
BOILING POINT MELTING POINT APPEARANCE ODOR	PROPERTIES IBP 580 F EP 670 F POUR POINT < - 50 F COLORLESS MILD LUBE ODOR	PERCENT VOLATILE VAPOR DENSITY (AIR = 1) EVAPORATION RATE (EE = 1) SPECIFIC GRAVITY	N/A N/A N/A .89 VARIES