### SUBSURFACE INVESTIGATION REPORT FOR THE AC TRANSIT 1177 47<sup>TH</sup> STREET FACILITY EMERYVILLE CALIFORNIA

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May 2003

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#### Introduction

On behalf of AC Transit, Cameron-Cole has prepared this report to present the results of a subsurface investigation performed at the AC Transit facility located at 1177 47th Street in Emeryville, California (the site)(Figure 1). On November 6, 2002, AC Transit submitted a Notification of Release to Groundwater to the Alameda County Health Division of Environmental Protection Department of Environmental Health (Alameda County). During third quarter 2002 groundwater monitoring conducted at the site, an approximate seven-foot free phase product layer was measured in monitor well MW-13 (Figure 2). This was the first measurable product layer recorded in monitor well MW-13. Soon thereafter, AC Transit conducted tests on the hydraulic lift system used in the Tire Shop building located near monitor well MW-13 (Figure 3). This testing confirmed that one of the hydraulic lifts had leaked and the faulty lift was immediately taken out of service.

On November 13, 2002, Cameron-Cole implemented free product removal from monitor well MW-13. Initially, product layer removal consisted of pumping the free phase layer from the well on a daily basis. By November 20, 2002 the layer had been reduced to a sheen (< 0.01 feet). On November 22, 2002 overpurging of the well was initiated in an attempt to depress the water table in the vicinity of the well.

In January 2003, the document "Workplan for Subsurface Investigation at the AC Transit 1177 47th Street Facility Emeryville, California" (workplan) was submitted to Alameda County. The workplan detailed a scope of work designed to further define the extent of the hydraulic oil in the vicinity of the Tire Building. This report presents the findings of the investigation generated from the January workplan.

### Subsurface Investigation

Monitor well MW-13, which contained the seven-foot free phase product layer, is located along the western property line of the site and monitors groundwater downgradient of the facility.

Figure 2 shows the location of the existing site monitor well network and the groundwater potentiometric surface contours from the first quarter 2003 monitoring event. During this subsurface investigation five borings (SB-1 through SB-5) were located in the vicinity of the Tire Building (Figure 3). At the request of Alameda County, a sixth boring (SB-6) was located downgradient of a 1,000-gallons underground storage tank (UST) used by the facility's emergency generator. All borings were installed for purposes of collecting grab groundwater samples and to visually inspect for the presence of free phase product.

#### **Boring Installation**

Prior to mobilizing equipment to the site, the following activities were completed:

- The site specific health and safety plan was updated.
- Underground Service Alert (USA) was notified of impending activities. Additionally, a
  professional underground utility locator cleared each boring location.
- Drilling permits were obtained from Alameda County Public Works Agency (ACPWA)
  and City of Emeryville Encroachment permit was obtained for borings located along
  Doyle Avenue (Appendix A).

The borings were installed on February 18, 2003 using Geoprobe<sup>TM</sup> push technology coring equipment. During boring advancement, soil cores were continuously collected in clear acetate sleeves, which allowed the field geologist to describe the soil lithology according to the Unified Soil Classification System. The lithologic logs for each boring are presented in Appendix B.

Prior to sample collection, a disposable bailer was lowered to the top of the water table and allowed to fill with groundwater. The bailer sample was visually inspected to assess if a hydrocarbon sheen or measurable layer was present. Grab groundwater sampling involved temporarily placing <sup>3</sup>/<sub>4</sub>-inch polyvinyl chloride (PVC) well screen and casing to the total depth of the borehole. Groundwater samples were collected using a peristaltic pump. Groundwater was transferred to laboratory supplied containers and a unique sample identification number was assigned to each container. The sample identification number was documented on the chain-of-

custody form. Upon completion of sample collection, each borehole was backfilled with neat cement and topped with appropriate material to match the surrounding ground surface.

Reusable equipment was thoroughly decontaminated between boreholes. Soil cuttings and water generated during sampling was placed in containers for storage and disposal in accordance with local, state and federal regulations.

#### **Laboratory Analysis**

Grab groundwater samples were submitted to Entech Analytical Labs for analysis by USEPA Methods 8015 modified for extractable fuel scan with silica gel cleanup and gasoline.

### **Investigation Results**

Boring SB-5, located inside the Tire Building, was not completed because the drilling equipment was unable to penetrate beyond a depth of four to five feet. Three separate locations were attempted inside the Tire Building and each location encountered refusal at the four to five foot depth. There was no visual evidence of sheen or free phase hydrocarbons detected in borings SB-1 through SB-3 and SB-6. Free phase hydrocarbons were detected in boring SB-4, which was installed immediately downgradient of monitor well MW-13. Due to the presence of the free phase hydrocarbons, a grab groundwater sample was not collected from SB-4.

### Lithology

The lithology encountered during the installation of borings SB-1 through SB-4 and SB-6, is consistent with that encountered during the installation of monitor wells MW-12 and MW-13, which are located in the vicinity of this investigation (Cameron-Cole, 2001). The site is underlain by silty clay to depths of three to six feet below ground surface (bgs), where a thin clayey to silty

sand layer is commonly encountered. The first sand layer has been described as slightly moist at depths less than six feet bgs and very moist to saturated below six feet bgs. This sand layer is underlain by silty clay to depths of 14 to 16 feet bgs, which consistently exhibits a strong hydrocarbon odor at a depth interval of seven to 8.5 feet bgs. Very moist to saturated conditions are encountered below the silty clay layer at depths of 16 to 20 feet bgs in more transmissive clayey sand to silty gravel layers. This more transmissive material was not observed in boring SB-3, even though a grab groundwater sample was successfully collected, suggesting that thin sand lenses are present within the predominantly clayey material.

As requested by Alameda County, a geologic cross-section incorporating lithologic data from monitor wells installed across the site is presented as Figure 4. The trace of cross-section A-A' has been oriented to follow the general direction of groundwater flow observed across the site. The cross-section presents a lithologic model similar to that observed in borings SB-1 through SB-6. Underlying the engineering fill, the lithology consists primarily of silty clays with discontinuous sand and gravel layers. A continuous core of the lithology was not collected in the monitor wells installed in 1987 and 1989. In these wells, approximately 1.5 feet of core was collected every five feet during well installation. Therefore, sand and gravel layers may be present in these wells at intervals not logged by the onsite geologist at the time of their installation.

#### Laboratory Results

Certified analytical reports for the grab groundwater samples analyzed during this investigation are presented in Appendix C and the results are summarized in Table 1. As stated previously, free phase hydrocarbons were visually observed in boring SB-4 (installed downgradient of monitor well MW-13); therefore, grab groundwater samples were not collected from this boring. Gasoline was detected at 630 parts per billion (ppb) in the grab groundwater sample collected from boring SB-6. The emergency generator UST stores diesel, not gasoline, suggesting that it has not impacted groundwater in its vicinity. The low level gasoline concentration is most likely the result of migration from previously replaced gasoline storage USTs located upgradient of SB-6.

As shown in Table 1, concentrations of TPH as diesel and motor oil were detected in the grab groundwater sample collected from SB-3 at concentrations of 9,500 and 34,000 ppb, respectively. The motor oil was quantitated from a carbon chain range of C18 through C40. This range is very similar to the range used to define concentrations of hydraulic oil (C11 through C40), suggesting that the motor oil concentration reported in SB-3 may be hydraulic oil. Concentrations above laboratory reporting limits detected in the grab groundwater samples collected from borings SB-1 and SB-2 were limited to stoddard solvents at 17,000 ppb and 1,400 ppb, respectively. Two solvent USTs were removed from an upgradient location at the facility in December 1999, however water samples collected as part of the UST closure indicated that only low levels of stoddard solvent (120 ppb) were present in groundwater.

### Conclusions/Recommendations

The following conclusions are based on data collected during this and past investigations. The proposed recommendations are based on the conclusions presented herein and standard regulatory agency actions taken on similar sites.

As discussed earlier, a seven-foot free product layer was measured in monitor well MW-13 during third quarter 2002 groundwater monitoring. The product was determined to be hydraulic oil and the source was from a hydraulic lift located in the Tire Building. The hydraulic lift was subsequently taken out of service and all lines were drained. Analytical results and field observation from grab groundwater samples collected in the vicinity of the Tire Building reveal that free product has migrated approximately 50 feet downgradient of MW-13. Concentration of TPH in groundwater at SB-3, located approximately 20 feet cross-gradient of MW-13, were reported at 34,000 ppb. Grab groundwater locations located approximately 85 and 135 feet cross-gradient of MW-13 were below reporting limits for TPH as motor and hydraulic oil, but they did have detectable concentrations of stoddard solvent. The results of analysis of the grab groundwater sample collected from SB-6, located downgradient of the facility's emergency generator UST, did not detect concentration of diesel over laboratory reporting limits.

The extent of free phase hydrocarbon associated with the hydraulic lift leak has not been fully defined. The workplan for this investigation presented three contingent borings locations (Figure

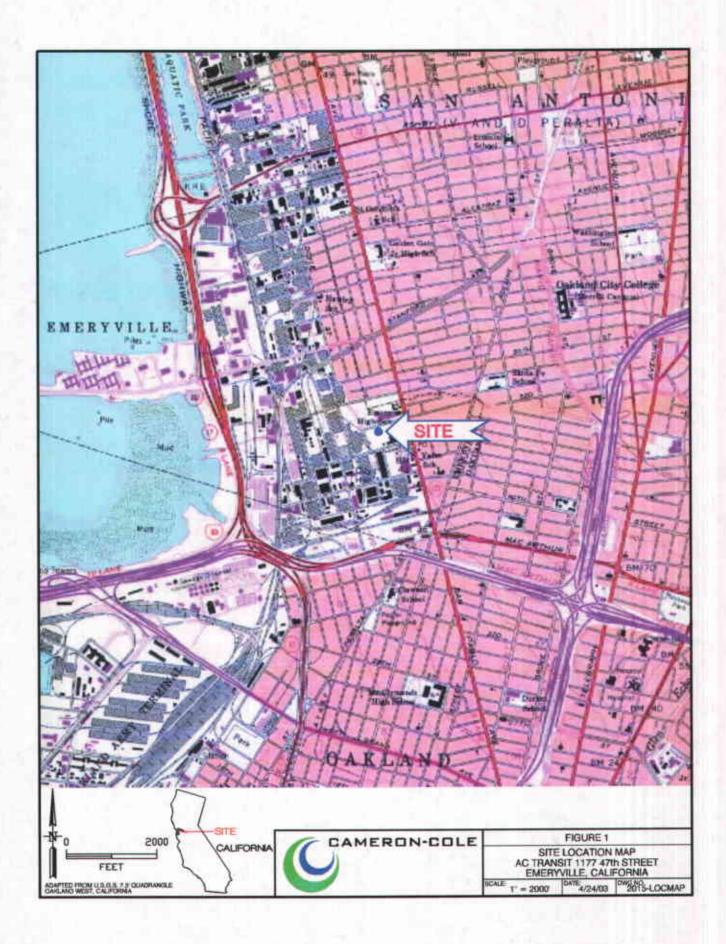
3) on the west side of Doyle Street which could be installed if further downgradient definition is deemed appropriate. Based on the hydrocarbon concentrations observed in borings SB-3 and SB-4, and the known groundwater flow direction, the two northern most contingent boring locations are appropriately located to provide the needed additional definition of the extent of hydraulic oil. One additional boring, located along 47th Street, would also be installed to further define hydraulic oil in the downgradient direction. Grab groundwater sample analyses from these three contingent borings would also be used to further define the extent of stoddard solvent detected in borings SB-1 and SB-2.

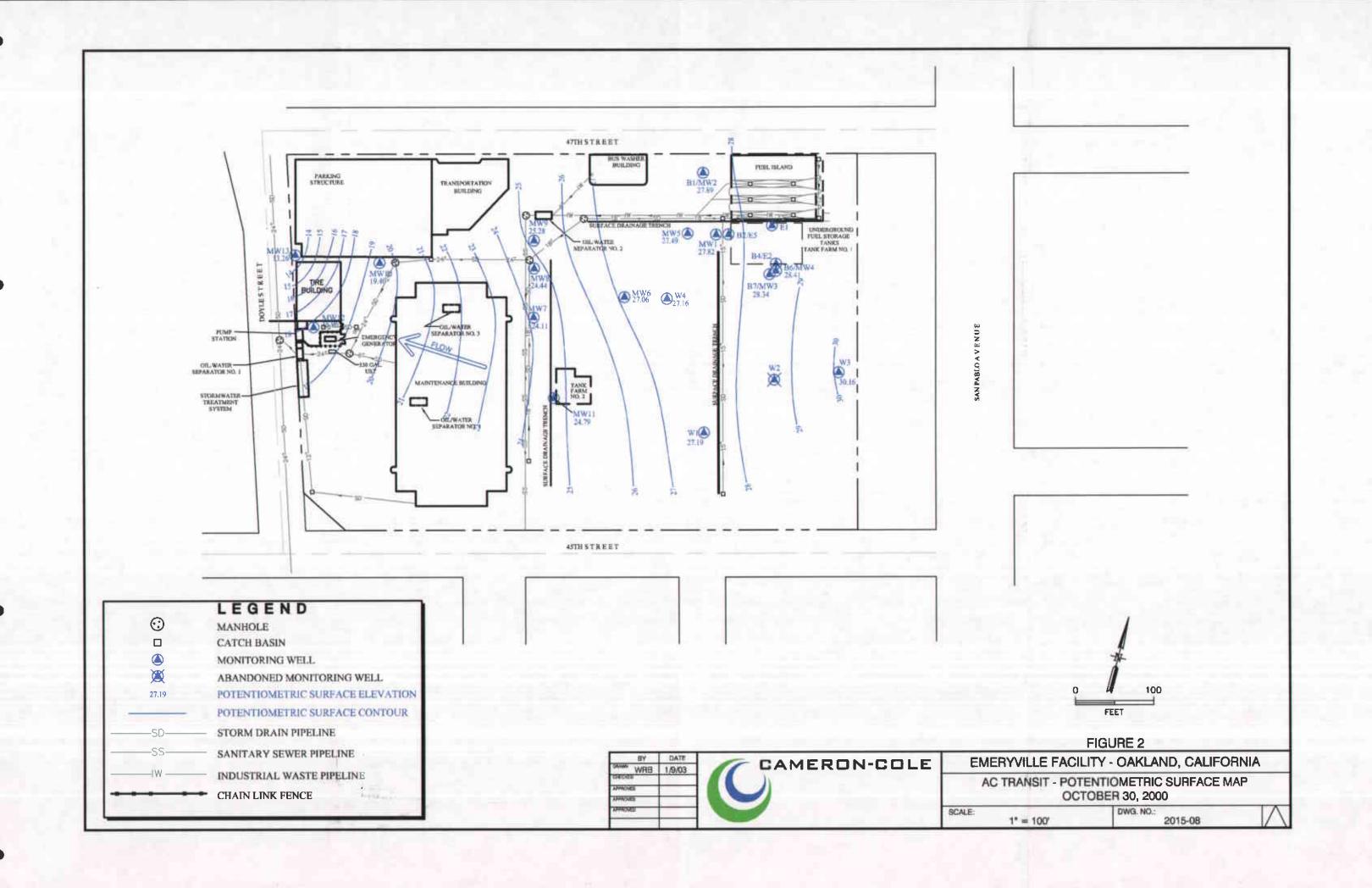
Assuming that the analytical results from the additional grab groundwater samples collected from the three contingent boring locations discussed in the previous paragraph provide sufficient definition on the extent of TPH, approximately two locations will be selected for the installation of groundwater monitor wells. The monitor wells will be included in the facility's current quarterly groundwater monitoring program, which includes analyses to assess natural degradation processes. Additionally, once the extent of the TPH is further defined, remedial action options, which may enhance natural degradation processes, will be evaluated.

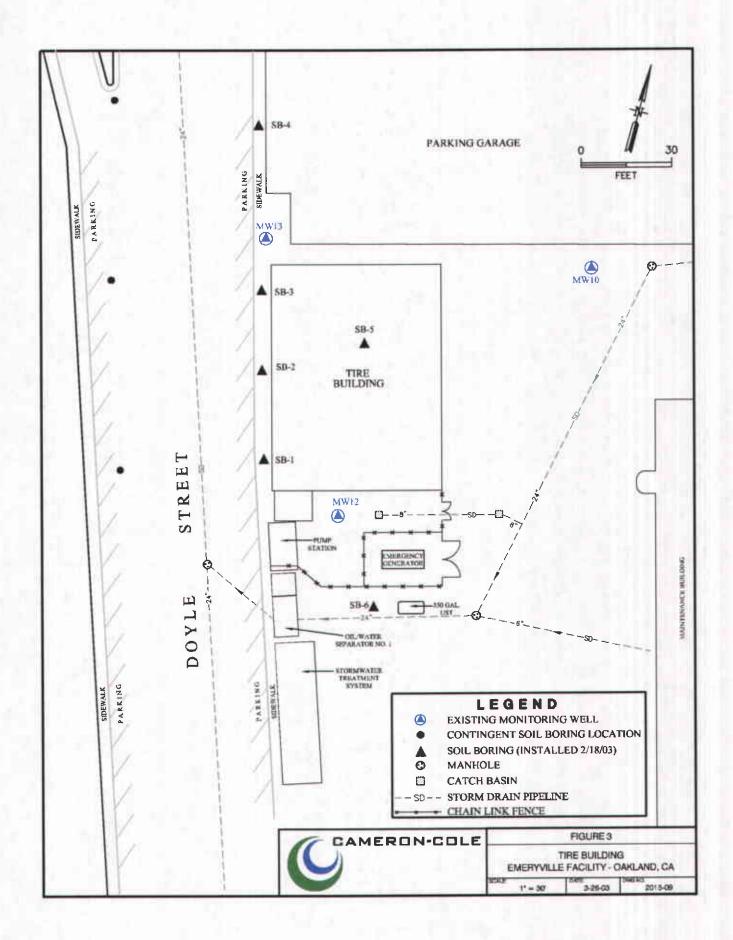
### References

Cameron-Cole 2002, Groundwater Monitoring Report for the AC Transit Facility Located at 1177 47th Street, Emeryville, California, October 2002

Cameron-Cole 2003, Workplan for Subsurface Investigation at the AC Transit 1177 47th Street Facility, Emeryville California, January 2003







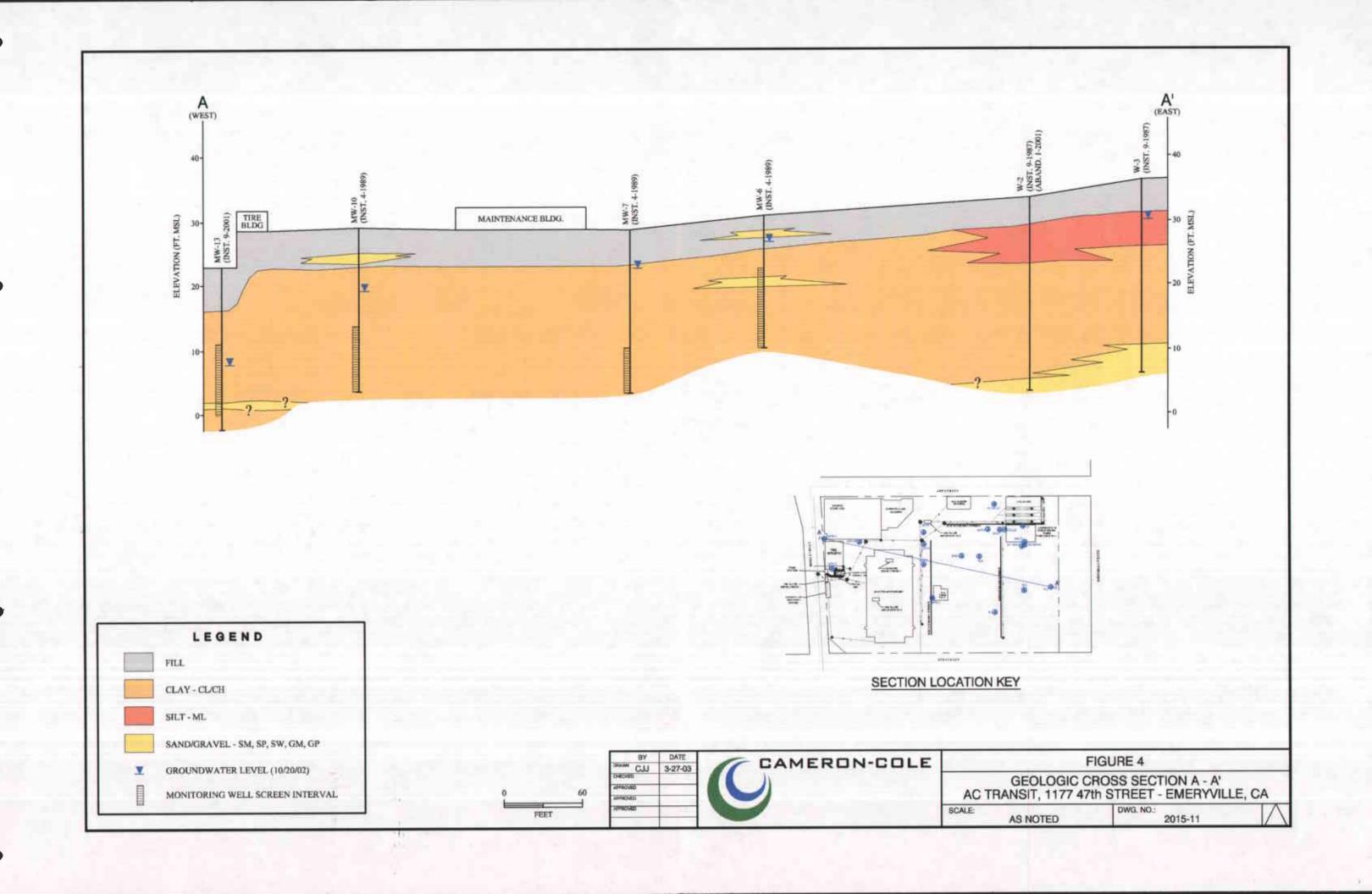


Table 1
Grab Groundwater Analytical Results
AC Transit 1177 47TH Street
Emeryville, California

	Soil Boring	Date	TPH-ss	TPH-d	TPH-mo	TPH-g
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ļ	SB-6	2/18/2003	<50	<50	<250	630

#### Notes:

All concnetrations in micrograms per liter (ug/L)

TPH-ss = total petroleum hydrocarbon as stoddard solvent

TPH-d = total petroleum hydrocarbon as diesel

TPH-mo = total petroleum hydrocarbon as motor oil

TPH-g = total petroleum hydrocarbon as gasoline

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Property. Boring will be backed the order of the care of the property of a principly the Chirch formation with the plans in the care of the providence of property of a perfect in the plans in the properties and the properties are in complete the works to the adjustment of the City equivals to forther work.  The plans is a properties to the properties to the properties of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the	condition why trent all claims of soils for injuries to begin constitution with all industrials to be used are slightfurth Privisions to Enormalishment Portrits and all ing costs in addition to those paid at the since of simulated. Rightfurth and if for any reason the City, of Emeryvilla.  16.10.3  and have been given to the applicant:
Property. Boring will be backed the or company of the provided in the internal many to perform all work in accordance with the plans is individed it have the performent of the plans is individed in the plans is individed by performent the performance of performance of the perfor	Long Confect With Concrete on Complets in every way trent all claims of suits for injurator to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energy and fill in a solid to those patrices and in the City of Energy illa City of Energy illa City of Energy illa City of Energy illa and liavo been given to the applicant:  (510-596-3750) 24 LIGHTER IN ADVANCES.
Property. Boring will be backed the order of the care of the property of a principly the Chirch formation with the plans in the care of the providence of property of a perfect in the plans in the properties and the properties are in complete the works to the adjustment of the City equivals to forther work.  The plans is a properties to the properties to the properties of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the properties of the properties.  Date of the properties of the	Long Confect With Concrete on Complets in every way trent all claims of suits for injurator to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energy and fill in a solid to those patrices and in the City of Energy illa City of Energy illa City of Energy illa City of Energy illa and liavo been given to the applicant:  (510-596-3750) 24 LIGHTER IN ADVANCES.
Property. Boring will be backed like of the care to property as not independently the City of Emeryville and filled it harming to perform all work in accordance with the plans inhinited it havy); the plans in perform all work in accordance with the plans inhinited it havy); the plans is perform all work in accordance with the plans inhinited it havy); the plans is permit. I further there has complete the work to the adjustment of the City experient to amplete the work I will juy allowed to be not the complete the work I will juy allowed to be not the complete the work I will juy allowed to be not the complete the work in the complete the work.  FOR CITY USE ONLY  He thillowing the unions are attrached and imaginary work.  Date 2  FOR CITY USE ONLY  FOR CITY USE ONLY  He thillowing the unions are attrached and imaginary work.  Date 2  FOR CITY USE ONLY  FOR CITY USE ONLY  FOR CITY USE ONLY  The provisions to Chermachenent Permit  Date 2  FOR CITY USE ONLY  FOR CITY USE	Long Confect With Concrete on Complete in over the period of the constitution with all materials to be used and solidated Privisions to Enormal ment Partitly and all in costs in addition to those patrins the since of simplified and it is any reason the City of Emeryville.  Long To start of works the applicant:  10 TO START OF WORK.  (510-596-1750) 24 LIGHTER IN ADVANCE.
Property. Boring will be backed less a large and power and make the carried and property as not forth made standard providents. Ingrishmat limit to perform all work in accordance with the plans inhibited in his plans. Ingrishmat limit to perform all work in accordance with the plans inhibited in the his permit. I further types to complete the work to the adjustment of the City required to semplote this work. I will just allowed to be made and the City required to semplote the work. I will just allowed to be adjusted on the City of the following che understand a retainment had in the intermediate the complete the work of the city.  FOR CITY USE ONLY  F	Long Confect With Concrete on Complets in every way trent all claims of suits for injurator to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energiable to be used and solidated Privisions to Energy and fill in a solid to those patrices and in the City of Energy illa City of Energy illa City of Energy illa City of Energy illa and liavo been given to the applicant:  (510-596-3750) 24 LIGHTER IN ADVANCES.
Property. Borray Will be backed the of the provided internal mage to person of property as set forth invite Standard Provisions: Enginemate to person of property as set forth invite Standard Provisions: Enginemate to person all with in secondands with the plans abbuilded (If bry); the blench's Special Conditions of Approval. and to pay all inspection and single-set this permit. I further agree to complete the work to the satisfication of the City equivalent to sample to the work. I will pay algorith for the satisfication of the City equivalent to sample to the work. I will pay algorith for the work.  POR CITY USE ONLY  FOR CITY USE ONLY  In of this work of the work of the permit of the city of the permit of the city. Details of the city of the	Long Confect With Concrete on Complete in over the period of the constitution with all materials to be used and solidated Privisions to Enormal ment Partitly and all in costs in addition to those patrins the since of simplified and it is any reason the City of Emeryville.  Long To start of works the applicant:  10 TO START OF WORK.  (510-596-1750) 24 LIGHTER IN ADVANCE.
Property. Borray Will be backet file of Property. Borray Will be backet file of Property. Borray Will be backet file of Property as act forth mane standard Provisions: regricant mage to persons or importy as act forth mane standard Provisions: regricant profession and singulations of Approval and to pay all inspection and single-son bis permit. I further agree to complete the work and pay all inspection and single-son this permit. I further agree to complete the work and pay all inspection and single-son this permit. I further agree to complete the work work work.  POR CITY USE ONLY  FOR CITY USE ONLY  Individual provisions at Exercise the this permit.  U yes one Standard Provisions at Exercise themse Permit.  U yes one Standard Provisions at Exercise mane Permit.  U yes one Handout Urban Runoff IMP's  U yes one Handout Urban Runoff IMP's  U yes one Other.  West one PROVIDS CONSTRUCTION SCEIBOTH TOAYS PROVISE.  The PROVIDS CONSTRUCTION AT 110-396-4333.  Yes one PLEASE NOTHY POLICE (\$10-596-4700) AND FIRE (is permit is void unless the work is completed before the permit is to be attrictly construct and no other work that is specifically provise.  TITLE	Confidence of the concrete of complete in every way treat all claims in still the industrial problem in the providence of pegar constitution with all industrials to be used and ship for the period before the simulation of simulation. Brighteen and if by only reason the City, of Emetyvilla.  100 TO START OF WORK.  (510-596-1750) 24-110 Like in Advance.  (510-596-1750) 24-110 Like in Advance.  (510-596-1750) 24-110 Like in Advance.
Property. Borney Will be back file of the property of a complete the particular of property as a complete the standard provide and field illustrate mage to perform all work in accordance with the plans the individual flat may), the blood's special Children's of Approval, and to pay all independent that perform the performance the performance of the City of the plans the individual engineers the work in the adjustment of the City of the performance of t	Confidence of the concrete of complete in every way treat all claims in still the industrial problem in the providence of pegar constitution with all industrials to be used and ship for the period before the simulation of simulation. Brighteen and if by only reason the City, of Emetyvilla.  100 TO START OF WORK.  (510-596-1750) 24-110 Like in Advance.  (510-596-1750) 24-110 Like in Advance.  (510-596-1750) 24-110 Like in Advance.

From-

			SOIL BORING LOG AND WE	LL COMPLETIO	N DATA		BORING	NO.:
	AME	RON-COLE	CLIENT/PROJECT:		ORILLER:	TEV.	S	B-1
	•••••		AC TRANSIT / EME DRILLING RIG TYPE:	KT VILLE, LA	VIRON		IETHOD:	
				PROBE			IRECT PUSI	
			DATE STARTED: 2/18/03	DATE COMPL	ETED: 2/18/03		PROJECT NUM 2017	IBEA:
TOTAL DEPTI	1 (FT.):	20	WATER DEPTH (FT.): 5.35	LOGGED BY:	ANDREW V	NYCKOI	FF	
WELL.	DEPTH	20		<u>L</u>	USCS CODE	OVM	SAMPLE	SAMPLE
COMPLETION			DESCRIPTION		GRAPHIC	PPM	NUMBER	RESULTS
		3 - 5 ft. Sil 30 5 - 7 ft. Clasal 7 - 8.5 ft. S str 8.5 - 11 ft. wh 11 - 13 ft. sti 13 - 16 ft. fir gra	ty Clay; strong brown (7.5YR4/3); sff; dry  ty Sand; brown (7.5YR4/3); sfw; slightly moist  ayey Sand; pale brown (10YR4/2); strong hydrocarbon odor  Silty Clay; grey (10YR5/1); Inite mottles; dry  Sandy Clay; greyish brown (1 off; slightly moist  Silty Clay with gravel; pale brown; medium plasticity; black mayels ~20%; dry  Clayey Gravel; brownish yellom; gravels ~40%; moist	ub-angular grav  6/3); soft;  1); medium stiff  nigh plasticity;  0YR5/2); mediantown (10YR6/3)  nottles;	GRAPHIC  CL  Zels			
	20-	End of bore	ehole					
5	25-	- -						

	<del></del> -		SOIL BORING LOG AND WE	LL COMPLETION	DATA		BORING	NO.:
	<b>AMF</b>	RON-COLE	CLIENT/PROJECT:	D	RILLER: VTRO!	TEV	=  ຣ	B-2
			AC TRANSIT / EME DRILLING RIG TYPE:	RYVIELE, CA	VIKO		NETHOD:	
				PROBE		r	IRECT PUSE	ł
			DATE STARTED: 2/18/03	DATE COMPLET	ED: 2/18/03		PROJECT NUM 2017	IBEA:
TOTAL DEPTH	I (FT.):		WATER DEPTH (FT.):	LOGGED BY:	ANDREW V	NVCVO:		-
WELL	DEPTH	20	5.74	<u> </u>	USCS CODE	OVM	SAMPLE	SAMPLE
COMPLETION			DESCRIPTION		GRAPHIC	PPM	NUMBER	RESULTS
100	0-	0 - 1.5 ft. I	Pea Gravel		   			
	_	0 1.0 16, 1			XFILL X			
		1.5 - 5 ft. 8	Silty Clay with Gravel; strong	brown (7.5YR4/6	9 <b>/</b> ///			
			ıb-angular gravels ~20%; dry					
	-				CL			
	_5_	F (0.00	t. 71 t. 12 t. 1	<del> </del>	<del>-   / / / /</del>			
	<b>▼</b> _		lty Sand; slightly moist		SM			
			lty Clay; dark yellowish brown		/ci//			
	_	\	oft, medium plasticity; slightly		CL			
	_		lty Clay; olive grey (5Y4/2); so rong hydrocarbon odor	oft;	<del>////</del>			
MEH.	_	\	Sandy Clay with gravel; brown	/ (10VR4/3): soft:	Ćļ/			
	10—		ne grained Sand; 20% sub-ang				SB-2	
	10	sli	ightly moist				30-2	
DIAMETER BOREHOLE PORTLAND CEMENT			Silty Clay; very dark grey (10	YR3/6);	/cl/			
	_	m	edium stiff; slightly moist					
withH				· <del></del>				
BACKFILLED			Silty Clay; greyish brown (10' py plasticity; 5% gravels; dry	YR5/2);				
X		10	w plasticity, 576 gravets, dry		1/9//			
BAC PA	15—							
	_	16 20 0	C1 C 1 1 1	(1037D 4/2)	<del> /_/</del> _			
	_		Clayey Sand; dark greyish broaturated at 16'	wn (101 K4/2);	- <del>-</del> -			
					-sc-			
					<u> </u>			
		1			<del> -</del>			
	20-	- 4 44						
		End of bor	ehole					
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2017-02	25-							
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			SOIL BORING LOG AND V	VELL (	COMPLETION I	DATA		BORING	NO.:
	. N. E. P.	ON-COLE	CLIENT/PROJECT:		DF	AILLEA:	TT'S2	S	B-3
	4 M E K	ON-CULE	AC TRANSIT / EN DRILLING RIG TYPE:	MERY'	VILLE, CA	VIRO		ETHOD:	· -
				EOPRO	)BE			RECT PUSI	
			DATE STARTED: 2/18/03		DATE COMPLET	ED: 2/18/03		PROJECT NUN 2017	IBER:
TOTAL DEPTH	(FT.):		WATER DEPTH (FT.):	T LC	OGGED BY:			· · · · · ·	
		20	17.97		<u></u>	ANDREW V			0442515
WELL COMPLETION	DEPTH FEET		DESCRIPTION			USCS CODE GRAPHIC	OVM PPM	SAMPLE NUMBER	SAMPLE RESULTS
	0-			-		1///	-		
	Ĭ		ty Clay; strong brown (7.5)		); medium	Y///	:		
		stii	ff; sub-angular gravels ~5%	; dry		∫çı/			
	_								
					<del>, , , , , , , , , , , , , , , , , , , </del>	1/1/1/1			
			iyey Sand; dark yellowish b	rown	(10YR3/6);				
		soi	ft; very moist						
	5					//sc///			
		7-85A S	Silty Clay; olive grey (5Y4/2	2): so:	ft: verv moist				
			ong hydrocarbon odor	<i>-</i> , 30	it, very mone	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
EN HO	}	85 12 A	Silty Clay; dark greyish bro	33283 (	10VR4/2)·				
2" DIAMETER BOREHOL		6.5 - 12 ft. me	edium plasticity; sub-angula	ır gra	vels ~5%; dry				
8 9	10—					/á/		SB-3	
頁,   頁									
P. P. P.									
—2" DIAMETER BOREHOI WITH PORTLAND CEMENT		12 - 13.5 ft.	Silty Clay; dark yellowish	brov	vn (10YR4/6);	CL			
	_		ft; medium plasticity; grave						
BACKFILLED		13.5 - 17 ft.	. Silty Clay; dark grey (10)	/R3/1	); soft;	1///			
KI KI			edium plasticity; dry		,				
BAC	15-					Cr'/			
	_								
	lacksquare		Silty Clay; dark brown (10Y						
	▼-	pla	asticity; rusty mottled appear	irance	e; moist	,cL/			
						V///		[	
	20-					<u> </u>			
	20—	End of bore	ehole						
	-							:	
	_								1
	-								
	-								
2017-03	25—								
<u>ۃ</u>								L.,,,,	

			SOIL BORING LOG AND WE	LL COMPLETION	DATA		BORING	NO,:
l	A		CLIENT/PROJECT:	(	ORILLER:		<u> </u>	B-4
	4MER	ON-COLE	AC TRANSIT / EMI DRILLING RIG TYPE:	ERYVILLE, CA	VIRO		IETHOD:	
			1	PROBE			RECT PUSI	1
			DATE STARTED:	DATE COMPLE			PROJECT NUN 2017	
TOTAL DEPTH	(FT.):		2/18/03 VATER DEPTH (FT.):	LOGGED BY:	2/18/03			
	· ·	20	7.12	1	ANDREW V			0.05=:=
WELL COMPLETION	DEPTH FEET		DESCRIPTION		USCS CODE GRAPHIC	OVM PPM	SAMPLE NUMBER	SAMPLE RESULTS
<u></u>	0-							
	Ĭ		y Clay; strong brown (7.5YF	(4/6); medium				
		pla	sticity; dry					
	_				/çı//			
	_	4 - 7 ft. Sar	ndy Clay; dark yellowish bro	wn (10YR4/6):	1///			
	5—		ty mottled appearance; sligh	,				
					ĆĹ			
	lacksquare –	7 05A S	ilty Clay; olive grey (5Y4/2)	etrong	<del>///</del> /			
	_		drocarbon odor	, suong	/ć./			
HOH				2\	<del>- ////</del>			
OR CEN	_		. Silty Clay; brown (10YR5) sticity; dry	5), son medium	CL/			
S S	10-	<b>.</b>					SB-4	
DIAMETER BOREHOLE PORTLAND CEMENT		10.5 - 12 ft.	Silty Clay; very dark grey (	2.5Y3/1);	1///			
MA N			dium stiff; slightly moist	,	/9//			
2" E	_	12 - 14 ft. 5	Silty Clay; dark yellowish bro	wn (10YR3/6);				
			t; medium plasticity; slightly		/ci//			
BACKFILLED								
			Clayey Sand; olive grey (5	(4/2); saturated;	+ <i>\//s//</i> /			
1 % S	15-	str	ong hydrocarbon odor					
			ft. Silty Clay; very dark grey	(2.5 <b>Y</b> 3/1);	/ci/			
		stir	ff; dry		r \ <i>1/1/1/</i>			
			ft. Clayey Sand; very dark g	rey (2.5Y3/1);	//sc///			
	_	ve	ry moist					
	_	18.5 - 20.6	Silty Gravel with sand; oliv	e brown (2.5V4)	/ /3)-			
	00		oist	C DIOWII (Z.S I 4)				1
	20-	End of bore	hole					
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	_							
2017-04	25-							
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			SOIL BORING LOG AND WE	LL COMPLETIO	N DATA		BORING	NO.:
- C/	AMER	RON-COLE	CLIENT/PROJECT:		DRILLEH: VIRON	NEX	S	B-6
	<b></b>	<b></b>	DRILLING RIG TYPE:	RIVILLE, CA	ivikol		(ETHOD:	
			1	PROBE			IRECT PUSI	
			DATE STARTED: 2/18/03	DATE COMP	LETED: 2/18/03		PROJECT NUM 2017	BER:
TOTAL DEPTH	I (FT.):	20	WATER DEPTH (FT.): 9.20	LOGGED BY:	ANDREW V	NVCKO		
WELL	DEPTH	20	9.20	_	USCS CODE	OVM	SAMPLE	SAMPLE
COMPLETION			DESCRIPTION		GRAPHIC	PPM	NUMBER	RESULTS
T	0-				KXXXX			
		0 - 1.5 ft. P	ea Gravel		<b>₩</b>			
					<del> </del>			
			lilty Clay; dark yellowish brow					
		SOI	ft; medium plasticity; gravels	~10%; ary	CL			
	_				- <i>Y///</i>			
	5—				_///			
	_		ty Clay with gravel; very dark		1); / ˈçr//			
	_	stif	ff; 30% sub-angular gravel; sl	ightly moist	_/			
	_		Clayey Sand; brown (7.5YR4/4		ed -sc-			
			dium grained; 30% gravel; ru	sty mottled				
o ve		apı	pearance; very moist					
ME.	lacksquare –	8.5 - 11 ft.	Sandy Clay; brown (7.5YR4/-	4); soft; dry				
(B)	10				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		On /	
AN TER	10-						SB-6	
DIAMETER BOREHOI PORTLAND CEMENT	_	11 12 6 (	034 01- 4-4 (103/D.4)	/1 N. 1. 1. 1.				
POI DIA			Silty Clay; dark grey (10YR4/ asticity; slightly moist	ı); nıgn	CH/			
2" WITH		pre	isticity, sugnity moist					]
	_	12 145 🛱	Sandy Clay; dark greyish br	000 /10VP 4/2	<u>. 777</u>			
BACKFILLED			ft; saturated	OWII (101 N4/2	" / ˈc̪·/			
				\ S .	<del>- 1///</del>			
*     ×     ×	15—		ft. Silty Clay; grey (10YR5/1 ottled appearance; moist; pink		,cL/			
			.5YR8/2) sub-angular gravels		////			
					11-11			
	_		ft. Silty Sand; yellowish brow ft; saturated	vn (101K5/6);	' SM			
		] \			-/			
			. Silty Gravel with sand; mult % sand; firm; very moist	a-colorea;	. GM			
	_	1 70	78 Sanu, IIIII, very moisi					1
لنال	20-	- 1 C1						
		End of bore	chole					
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2017-05	25-							

# APPENDIX C CERTIFIED ANALYTICAL REPORTS

### Entech Analytical Labs, Inc. RECEIVED MAR 1 0 2003

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

February 28, 2003

Brad Wright Cameron-Cole 101 W. Atlantic Ave., Bldg#90 Alameda, CA 94501

Order:

33376

Date Collected:

02/18/03

Project Name:

AC Transit Hyd. Oil

Date Received:

02/19/03

**Project Number:** 

2017

P.O. Number:

2017

**Project Notes:** 

On February 19, 2003, samples were received under documentented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>

<u>Test</u>

Method

Liquid

PDF

PDF

TPH as Gasoline

EPA 8015 MOD. (Purgeable)

TPH, Extractable w/ Si-Gel Std

EPA 8015 MOD. (Extractable)

Case Narrative: Per client request, report re-issued 2/28/03 to include carbon ranges used for fuel quantitation.

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

Patti Sandrock QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

				Cert	ineu A	патупс	ai Keho	rı			
Order ID	: 33376		Lab S	Sample	ID: 333	76-001		Client Sar	mple ID: S	B-1	
Sample Time:	2:20 PM		Sar	nple Da	ate: 02/1	18/03			Matrix: L	iquid	
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil		ND		10	250	2500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog	gate	Surr	ogate Recove	ту Соп	trol Limits (%)
						o-Terph	enyl		71.0		35 - 125
Comment:	Extraction p	erformed v	vith stands	ard silica	gel cleanup	o. TPH as	Bunker Oil	quantitated fro	m C9-C40.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		ND		10	50	500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ate	Surre	gate Recover	y Cont	rol Limits (%)
						o-Terphe	nyl		71.0		5 - 125
Comment:	Extraction po	erformed w	ith standa	rd silica ş	gel cleanup	. TPH as I	Diesel quant	itated from C9	-C26.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Heating Oil		ND		10	250	2500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ite	Surro	gate Recovery	Conti	ol Limits (%)
						o-Terpher	nyl		71.0		5 - 125
Comment:	Extraction pe	rformed wi	th standar	d silica g	el cleanup.	TPH as H	leating Oil o	quantitated fror	m C10-C39.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil		ND		10	250	2500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	te	Surrog	gate Recovery	Contr	ol Limits (%)
						o-Terphen	ıyl		71.0		- 125
Comment:	Extraction per	rformed wi	th standar	d silica ge	el cleanup.	TPH as H	ydraulic Oil	quantitated fro	om C11-C40.		

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID:	: 33376	Lab S	ample	ID: 3331	76-001		Client Sar	nple ID: Si	3-1	
Sample Time:	: 2:20 PM	San	nple Da	ite: 02/1	8/03			Matrix: Li	quid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Jet Fuel (Jet A	ND ND		10	50	500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOI (Extractable)
					Surrog	ate	Surr	ogate Recover	y Con	trol Limits (%)
					o-Terph	eny <b>i</b>		71.0	3	35 - 125
Comment:	Extraction performed	with standa	rd silica	gel cleanup	. TPH as .	Jet Fuel (Jet	A) quantitated	from C8-C18.		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Kerosene	ND		10	50	500	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD (Extractable)
								_		
					Surroga	ate	Surro	gate Recovery	y Cont	rol Limits (%)
					Surroga o-Terphe		Surro	gate Recovery 71.0		5 - 125
Comment:	Extraction performed v	vith standa	rd silica g	gel cleanup.	o-Terphe	nyi		71.0		
	Extraction performed v	with standar	rd silica g	gel cleanup.	o-Terphe	nyi		71.0		, ,
Parameter				•	o-Terphe	nyt Kerosene qu	antitated from	71.0 C8-C16. Analysis	3	5 - 125
Parameter	Result		DF	PQL	o-Terphe TPH as F	nyl Kerosene qu Units μg/L	Extraction Date 02/20/03	71.0 C8-C16. Analysis Date	QC Batch ID DW4307A	Method  EPA 8015 MOD.
Comment:  Parameter  TPH as Motor Oil	Result		DF	PQL 250	o-Terphe TPH as F  DLR  2500	nyl Kerosene qu Units µg/L	Extraction Date 02/20/03	71.0 C8-C16. Analysis Date 02/26/03	QC Batch ID DW4307A Contr	Method  EPA 8015 MOD. (Extractable)
Parameter	Result	Flag	<b>DF</b> 10	PQL 250	o-Terphe TPH as R  DLR 2500 Surroga o-Terpher	nyl Kerosene qu Units μg/L te	Extraction Date 02/20/03 Surro	71.0 C8-C16. Analysis Date 02/26/03 gate Recovery 71.0	QC Batch ID DW4307A Contr	Method  EPA 8015 MOD.  (Extractable) ol Limits (%)
Parameter TPH as Motor Oil	Result ND	Flag	<b>DF</b> 10	PQL 250	o-Terphe TPH as R  DLR 2500 Surroga o-Terpher	nyl Kerosene qu Units μg/L te	Extraction Date 02/20/03 Surro	71.0 C8-C16. Analysis Date 02/26/03 gate Recovery 71.0	QC Batch ID DW4307A Contr	Method  EPA 8015 MOD.  (Extractable) ol Limits (%)
Parameter TPH as Motor Oil  Comment:	Result  ND  Extraction performed w	Flag	<b>DF</b> 10 d silica g	PQL 250 el cleanup.	o-Terphe TPH as I  DLR 2500 Surroga o-Terphet TPH as M	nyl  Kerosene qu  Units  μg/L  te  nyl  Iotor Oil qu	Extraction Date 02/20/03 Surre	71.0 C8-C16.  Analysis Date 02/26/03 gate Recovery 71.0 C18-C40.  Analysis	QC Batch ID DW4307A Contr	Method  EPA 8015 MOD. (Extractable) ol Limits (%) - 125
Parameter TPH as Motor Oil Comment:	Result  ND  Extraction performed w	Flag	DF 10 d silica g	PQL 250 el cleanup.	o-Terphe TPH as I  DLR 2500 Surroga o-Terphet TPH as M  DLR	Units  µg/L  te  fotor Oil qu  Units	Extraction Date 02/20/03 Surrogantitated from Extraction Date 02/20/03	71.0 C8-C16.  Analysis Date 02/26/03 gate Recovery 71.0 C18-C40.  Analysis Date	QC Batch ID  DW4307A  Contr  35  QC Batch ID  DW4307A	Method  EPA 8015 MOD. (Extractable) ol Limits (%) - 125  Method  EPA 8015 MOD.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright

TOT W. Atlantic Ave., Bidg#90

Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376 Lab Sample ID: 33376-001 Client Sample ID: SB-1 Sample Time: 2:20 PM Sample Date: 02/18/03 Matrix: Liquid Parameter Result Flag DF POL DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Transformer Oil ND 10 250 2500 μg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 71.0 35 - 125

Comment:

Extraction performed with standard silica gel cleanup. TPH as Trandformer Oil (C11-C34).

DF = Dilution Factor

ND = Not Detected

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PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

							ar reep		_		
Order ID	: 33376		Lab S	Sample	<b>ID:</b> 333	76-002		Client Sa	mple ID: S	B-2	
Sample Time	: 2:40 PM		Sa	mple D	ate: 02/	18/03			Matrix: L	iquid	
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil		ND		1	250	250	μ <b>g/L</b>	02/20/03	02/21/03	DW4307A	EPA 8015 MO (Extractable)
						Surrog	gate	Suri	rogate Recove	ry Con	trol Limits (%)
						o-Terph	enyl		68.0		35 - 125
Comment:	Extraction p	performed	with stand	ard silica	gel cleanu	p. TPH as	Bunker Oil	quantitated fro	om C9-C40.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		ND		1	50	50	μg/L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog	ate	Surre	ogate Recover	y Conf	rol Limits (%)
						o-Terphe	enyl		68.0		5 - 125
Comment:	Extraction p	erformed v	with standa	ırd silica ;	gel cleanup	o. TPH as l	Diesel quan	titated from C9	-C26.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Heating Oil		ND		1	250	250	μ <b>g/</b> L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ıte	Surro	gate Recovery	7 Conti	rel Limits (%)
						o-Terphe	ny!		68.0		5 - 125
Comment:	Extraction pe	erformed w	ith standa	rd siliça g	gel cleanup.	TPH as H	leating Oil	quantitated from	n C10-C39.		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil		ΝD		1	250	250	μg/L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	te	Surro	gate Recovery	Contr	ol Limits (%)
						o-Terpher	ıyl		68.0	35	- 125
Comment:	Extraction pe	rformed w	ith standar	d silica g	el cleanup.	TPH as H	ydraulic Oi	I quantitated fro	om C11-C40.		

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Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID:	ID: 33376 Lab Sample ID: 33376-002 Client Sample ID: SB-2												
Sample Time:	2:40 PM		San	nple Da	te: 02/1	18/03		Matrix: Liquid					
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method		
TPH as Jet Fuel (Jet A	.)	ND		1	50	50	μg/L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD (Extractable)		
						Surrog	-	Surr	ogate Recover	• • • • • • • • • • • • • • • • • • • •			
						o-Terph	•		68.0		35 - 125		
Comment:	Extraction p	erformed v	vith standa	ırd silica g	gel cleanup	. TPH as	Jet Fuel (Jet	A) quantitated	from C8-C18.				
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method		
TPH as Kerosene		ND		1	50	50	μg/L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD. (Extractable)		
						Surrog		Surrogate Recovery		Control Limits (%)			
			o-Terphenyl						68.0	35 - 125			
Comment:	Extraction pe	erformed w	rith standa	rđ silica g	el cleanup	. TPH as I	Kerosene qu	antitated from	C8-C16.				
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method		
TPH as Motor Oil		ND		1	250	250	μ <b>g/L</b>	02/20/03	02/21/03	DW4307A	EPA 8015 MOD. (Extractable)		
						Surroga		Surro	gate Recovery	Control Limits (%)			
						o-Terphe	nyl		68.0	35 - 125			
Comment:	Extraction pe	rformed w	ith standar	d silica ge	l cleanup.	TPH as N	Aotor Oil qu	antitated from	C18-C40.				
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method		
TPH as Stoddard Solve	nt	1400		1	50	50	μg/L	02/20/03	02/21/03	DW4307A	EPA 8015 MOD. (Extractable)		
						Surroga		Surrogate Recovery		()			
						o-Terpher	ıyl		68.0	35	- 125		
Comment:	Extraction per	rformed wi	th standar	d silica ge	l cleanup.	TPH as S	toddard Sol	vent quantitated	d from C8-C13.				

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PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Cameron-Cole

Comment:

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

**Order ID: 33376** Lab Sample ID: 33376-002 Client Sample ID: SB-2 Sample Time: 2:40 PM Sample Date: 02/18/03 Matrix: Liquid **Parameter** Result Flag PQL DLR Units Extraction QC Batch ID Analysis Method Date Date TPH as Transformer Oil ND 250 250 02/20/03 02/21/03 μg/L DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 68.0 35 - 125

Extraction performed with standard silica gel cleanup. TPH as Trandformer Oil (C11-C34).

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

TPH as Bunker Oil   ND   20   250   5000   μg/L   02/20/03   02/22/03   DW4307A   EPA 8015 (Extract Surrogate Surrogate Recovery Ontrol Limits (% O-Terphenyl 90.0 35 - 125				eri	med A	палунс	ат керс	rt					
Parameter	Order ID	: 33376	Lab S	- Sample	ID: 333	76-003	,	Client Sar	nple ID: S	B-3			
TPH as Bunker Oil ND 20 250 5000 μg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extraction performed with standard silica gel cleanup.  Parameter Result Flag DF PQL DLR Units Extraction Analysis standard silica gel cleanup.  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Date  Surrogate Policy DLR Units Extraction Analysis Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  TPH as Diesel 9500 x 20 50 1000 μg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extraction standard silica gel cleanup.  Parameter Not TPH as Diesel: unidentified hydrocarbon (C9-19) in the TPH as Diesel (C9-C26) quantitation range. Extraction performed with standard silica gel cleanup.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  TPH as Heating Oil ND 20 250 5000 μg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extraction o-Terphenyl 90.0 35 - 125 Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date  Surrogate Surrogate Recovery Control Limits (% 0-Terphenyl 90.0 35 - 125 Date Date Date Date Date Date Date Date	Sample Time	: 2:55 PM	Sai	mple D	ate: 02/	18/03							
Surrogate   Surr	Parameter	Result	Flag	DF	PQL	DLR	Units			QC Batch ID	Method		
Comment: Extraction performed with standard silica gel cleanup. TPH as Bunker Oil quantitated from C9-C40.  Parameter Result Flag DF PQL DLR Units Extraction Date Date Date  TPH as Diesel 9500 x 20 50 1000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 N (Extraction standard silica gel cleanup.)  Comment: Not TPH as Diesel: unidentified hydrocarbon (C9-19) in the TPH as Diesel (C9-C26) quantitation range. Extraction performed with standard silica gel cleanup.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Heating Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 N (Extraction or-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup.  TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method (Extraction or-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup.  TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  O-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup.  TPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extraction Date Date Date Date Date Date Date Date	TPH as Bunker Oil	ND		20	250	5000	μg/ <b>L</b>	02/20/03	02/22/03	DW4307A	EPA 8015 MOD (Extractable)		
Extraction performed with standard silica gel cleanup. TPH as Bunker Oil quantitated from C9-C40.    Parameter   Result   Flag   DF   PQL   DLR   Units   Extraction   Date						Surrog	ate	Surr	ogate Recove	гу Соп	y Control Limits (%)		
Parameter   Result   Flag   DF   PQL   DLR   Units   Extraction   Date						o-Terph	enyl		90.0	;	35 - 125		
Parameter   Parameter   Result   Flag   DF   PQL   DLR   Units   Extraction   Date	Comment:	Extraction performed	with stand	ard silica	gel cleanu	p. TPH as	Bunker Oil	quantitated fro	m C9-C40.				
Comment: Not TPH as Diesel: unidentified hydrocarbon (C9-19) in the TPH as Diesel (C9-C26) quanitation range. Extraction performed with standard silica gel cleanup.    Parameter   Result   Flag   DF   PQL   DLR   Units   Extraction   Analysis   Date   Date   Date	Parameter	Result	Flag	DF	PQL	DLR	Units			QC Batch ID	Method		
Comment: Not TPH as Diesel: unidentified hydrocarbon (C9-19) in the TPH as Diesel (C9-C26) quanitation range. Extraction performed with standard silica gel cleanup.  Parameter Result Flag DF PQL DLR Units Extraction Date Date TPH as Heating Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 N (Extractab Surrogate Recovery o-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date TPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractab Date Date Date Date C10-C39).  Surrogate Surrogate Recovery Control Limits (%) 0-Terphenyl 90.0 35 - 125	TPH as Diesel	9500	x	20	50	1000	μ <b>g/L</b>	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)		
Comment: Not TPH as Diesel: unidentified hydrocarbon (C9-19) in the TPH as Diesel (C9-C26) quanitation range. Extraction performed with standard silica gel cleanup.  Parameter  Result Flag DF PQL DLR Units Extraction Analysis Date Date  TPH as Heating Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable Surrogate Recovery Ontrol Limits (%) 0-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date  TPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable Date Date)  Surrogate Surrogate Recovery Control Limits (%) 0-Terphenyl 90.0 35 - 125						Surroga	ate	Surre	gate Recover	Control Limits (%)			
Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method TPH as Heating Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable Surrogate Recovery o-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable Surrogate Recovery Ocontrol Limits (%))  Surrogate Surrogate Recovery Control Limits (%)  O-Terphenyl 90.0 35 - 125						o-Terphe	nyl		90.0	3	5 - 125		
TPH as Heating Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable of Temperature) Policy (Extractable of Temperatur		standard silica gel clea	ոսp. 										
Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  IPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M (Extractable Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125		·	Ling		_				Date	QC Batch ID	Method		
O-Terphenyl 90.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  IPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M  (Extractable Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125	TPH as Heating Oil	ND		20	250	5000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)		
Comment: Extraction performed with standard silica gel cleanup. TPH as Heating Oil quantitated from C10-C39.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M  (Extractable Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125						Surroga	te	Surrogate Recovery					
Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  IPH as Hydraulic Oil ND 20 250 5000 µg/L 02/20/03 02/22/03 DW4307A EPA 8015 M  (Extractable Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125						o-Terpher	nyl		90.0	35	- 125		
Date   Date	Comment:	Extraction performed w	vith standar	rd silica g	el cleanup.	TPH as H	leating Oil	quantitated fror	n C10-C39.				
Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125	Parameter	Result	Flag	DF	PQL	DLR	Units		-	QC Batch ID	Method		
o-Terphenyl 90.0 35 - 125	TPH as Hydraulic Oil	ND		20	250	5000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)		
o-Terphenyl 90.0 35 - 125						-		Surrog	gate Recovery	Contro	ol Limits (%)		
Comment: Extraction performed with standard silica gel cleanup. TPH as Hydranlic Oil quantitated from C11 C40						o-Terphen	ıyl		90.0				
1	Comment:	Extraction performed w	ith standar	d silica ge	el cleanup.	TPH as H	ydraulic Oi	l quantitated fro	om C11-C40.				

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Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376 Lab Sample ID: 33376-003 Client Sample ID: SB-3 Sample Time: 2:55 PM Sample Date: 02/18/03 Matrix: Liquid Result PQL Parameter Flag DLR Units Extraction Analysis QC Batch ID Method Date Date ND TPH as Jet Fuel (Jet A) 20 50 1000  $\mu g/L$ 02/20/03 02/22/03 DW4307A EPA 8015 MOD. (Extractable) Control Limits (%) Surrogate Surrogate Recovery o-Terphenyl 90.0 35 - 125 Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18. Result PQL Parameter Flag DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Kerosene ND 20 50 1000 02/20/03 μg/L 02/22/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125 Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16. Comment: Flag Result DF PQL DLR Parameter Units Extraction Analysis QC Batch ID Method Date Date TPH as Motor Oil 34000 20 02/20/03 250 5000 02/22/03 μg/L DW4307A EPA 8015 MOD. (Extractable) Control Limits (%) Surrogate Surrogate Recovery o-Temhenyl 90.0 35 - 125 Not a TPH as Motor Oil pattern; Value due to an unknown hydrocarbon (C19 - C40), in the Motor Oil (C18-C40) quantitation Comment: range.Extraction performed with standard silica gel cleanup. Result Flag DF PQL Parameter DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Stoddard Solvent ND 20 50 1000  $\mu g/L$ 02/20/03 02/22/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125

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Comment:

ND = Not Detected

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Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Extraction performed with standard silica gel cleanup. TPH as Stoddard Solvent quantitated from C8-C13.

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/28/03

Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376 Lab Sample ID: 33376-003 Client Sample ID: SB-3 Sample Time: 2:55 PM Sample Date: 02/18/03 Matrix: Liquid Result Flag Parameter DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Transformer Oil ND 20 250 5000 02/20/03 μg/L 02/22/03 DW4307A EPA 8015 MOD. (Extraclable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125

Comment:

Extraction performed with standard silica gel cleanup. TPH as Trandformer Oil (C11-C34).

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/28/03

Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

				COL	uicu A	uaryuc	ат керс	)I L				
Order ID:	ID: 33376 Lab Sample ID: 33376-004 Client Sample ID: Sl									B-6		
Sample Time:	: 3:25 PM		San	nple Da	te: 02/	18/03			Matrix: Li	iquid		
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method	
TPH as Bunker Oil		ND		5	250	1250	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOI (Extractable)	
						Surrog	ate	Surr	ogate Recovei	y Cor	trol Limits (%)	
						o-Terph	enyl		72.0		35 - 125	
Comment:	Extraction p	erformed w	vith standa	rđ silica ;	gel cleanuj	o. TPH as	Bunker Oil	quantitated from	m C9-C40.			
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method	
TPH as Diesel		ND		5	50	250	μ <b>g</b> /L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD (Extractable)	
					Surrogate			Surra	gate Recover:	Control Limits (%)		
						o-Terphe	nyl		72.0	35 - 125		
Comment:	Extraction pe	rformed w	ith standa	rđ silica g	el cleanup	. TPH as I	Diesel quant	titated from C9-	-C26.			
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method	
TPH as Gasoline		630	x	1	50	50	μg/L	N/A	02/20/03	WGC62759	EPA 8015 MOD. (Purgeable)	
					Surrogate			Surro	gate Recovery	Cont	rol Limits (%)	
					4-Bromofluorobenzene				160.8	65 - 135		
					aaa-Trifluorotoluene				82.1	65 - 135		
Comment:	Reported TPI	I as Gasoli I as Gasoli	ne value is ne.	the resul	t of heavy	end hydrod	carbons wit	hin the TPH as	Gasoline quan	titation range but		
Comment:	Surrrogate recovery for BFB due to matrix interference. See TFT result.											
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method	
TPH as Heating Oil		ND		5	250	1250	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)	
					Surrogate			Surrog	ate Recovery	Control Limits (%)		
						o-Terphen	yl		72.0		- 125	
Comment:	Extraction per	£	d									

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017

P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Hydraulic Oil quantitated from C11-C40.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Jet Fuel (Jet A) ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOE (Extractable)  Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date					~~.		away eace	m xcopo	,				
Parameter	Order ID:	Lab Sample ID: 33376-004					Client Sample ID: SB-6						
TPH as Hydraulic Oil ND 5 250 1250 μg/L 02/20/03 02/26/03 DW4307A EPA 8015 MO (Extractable)    Surrogate   Surrogate   Surrogate Recovery   Control Limits (%)	Sample Time:	3:25 PM		Sample Date: 02/18/03						Matrix: Li	ix: Liquid		
Surrogate   Surrogate   Surrogate   Recovery   Control Limits (%)   35 - 125	Parameter		Result	Flag	DF	PQL	DLR	Units			QC Batch ID	Method	
O-Terphenyl   72.0   35 - 125	TPH as Hydraulic Oil		ND		5	250	1250	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD (Extractable)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Hydraulic Oil quantitated from C11-C40.  Parameter Result Flag DF PQL DLR Units Extraction Date Date  TPH as Jet Fuel (Jet A) ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD (Extractable)  Surrogate Surrogate Recovery Control Limits (%)  o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date  TPH as Kerosene ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD (Extractable)  Surrogate Surrogate Recovery Control Limits (%)  o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date  o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date  O-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date  Date Date Date Date Date Date Date Date Date							Surrog	ate	Surr	ogate Recover	y Cont	trol Limits (%)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Hydraulic Oil quantitated from C11-C40.    Parameter   Result   Flag   DF   PQL   DLR   Units   Extraction   Date   D							o-Terph	enyl		72.0	3	5 - 125	
TPH as Jet Fuel (Jet A)  ND  5  50  250  µg/L  250  µg/L  250/26/03  Date  Dat	Comment:	Extraction p	erformed v	with stands	ırd silica	gel cleanup	TPH as i	Hydraulic C	Oil quantitated i	from C11-C40.			
Comment:   Extraction performed with standard silica gel cleanup.   TPH as Jet Fuel (Jet A) quantitated from C8-C18.	Parameter		Result	Flag	DF	PQL	DLR	Units			QC Batch ID	Method	
Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18.  Parameter  Result Flag DF PQL DLR Units Extraction Analysis Date Date TPH as Kerosene  ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD (Extractable)  Surrogate Surrogate Recovery Control Limits (%) 0-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable)  Surrogate Surrogate Recovery Control Limits (%)  Surrogate Surrogate Recovery Control Limits (%)	TPH as Jet Fuel (Jet A	.)	ND		5	50	250	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date Date  TPH as Kerosene ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD (Extractable)  Surrogate Surrogate Recovery O-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date  TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable)  Surrogate Surrogate Recovery Control Limits (%)  Surrogate Surrogate Recovery Control Limits (%)  Surrogate Surrogate Recovery Control Limits (%)							Surrog:	ate	Surro	Surrogate Recovery Con		rol Limits (%)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Jet Fuel (Jet A) quantitated from C8-C18.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method  TPH as Kerosene  ND 5 50 250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD  (Extractable)  Surrogate Surrogate Recovery Control Limits (%)  o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis Date  TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD.  (Extractable)  Surrogate Surrogate Recovery Control Limits (%)							o-Terphe	o-Terphenyl 72.0					
TPH as Kerosene  ND  5  50  250  pg/L  02/20/03  02/26/03  Dw4307A  EPA 8015 MOD  (Extractable)  Surrogate  o-Terphenyl  72.0  35 - 125  Comment:  Extraction performed with standard silica gel cleanup.  TPH as Kerosene quantitated from C8-C16.  Parameter  Result  Flag  DF  PQL  DLR  Units  Extraction  Date  Date  Date  TPH as Motor Oil  ND  5  250  1250  pg/L  02/20/03  02/26/03  DW4307A  EPA 8015 MOD  (Extractable)  Surrogate  Surrogate Recovery  Control Limits (%)  Method  Date  Date  Date  Date  Date  TPH as Motor Oil  ND  5  250  1250  pg/L  02/20/03  02/26/03  DW4307A  EPA 8015 MOD.  (Extractable)  Surrogate  Surrogate Recovery  Control Limits (%)	Comment:	Extraction pe	erformed w	vith standa	rd silica g	gel cleanup	TPH as J	et Fuel (Jet	A) quantitated	from C8-C18.			
(Extractable)  Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD.  (Extractable) Surrogate Surrogate Recovery Control Limits (%)	Parameter		Result	Flag	DF	PQL	DLR	Units		-	QC Batch ID	Method	
O-Terphenyl 72.0 35 - 125  Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable)  Surrogate Surrogate Recovery Control Limits (%)	TPH as Kerosene		ND		5	50	250	μg/L	02/20/03	02/26/03	DW4307A	EPA 8015 MOD. (Extractable)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Motor Oil ND 5 250 1250 μg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable)  Surrogate Surrogate Recovery Control Limits (%)							Surroga	ıte	e Surrogate Recovery			Control Limits (%)	
Comment: Extraction performed with standard silica gel cleanup. TPH as Kerosene quantitated from C8-C16.  Parameter Result Flag DF PQL DLR Units Extraction Analysis QC Batch ID Method Date Date  TPH as Motor Oil ND 5 250 1250 µg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable)  Surrogate Surrogate Recovery Control Limits (%)							o-Terpher	nyl		72.0			
Date Date  TPH as Motor Oil ND 5 250 1250 μg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD.  (Extractable)  Surrogate Surrogate Recovery Control Limits (%)	Comment:	Extraction pe	rformed w	rith standar	d silica g	el cleanup.	TPH as K	Cerosene qua	antitated from (	C8-C16.			
(Extractable) Surrogate Surrogate Recovery Control Limits (%)	Parameter		Result	Flag	DF	PQL	DLR	Units			QC Batch ID	Method	
5	TPH as Motor Oil		ND		5	250			02/20/03	02/26/03	DW4307A		
o-Terphenyl 72.0 35 - 125							Surroga	te	Surrog	gate Recovery	Control Limits (%)		
		•					o-Terpher	nyl		72.0	35	- 125	

DF = Dilution Factor

Comment:

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Extraction performed with standard silica gel cleanup. TPH as Motor Oil quantitated from C18-C40.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/28/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376 Lab Sample ID: 33376-004 Client Sample ID: SB-6 Sample Time: 3:25 PM Sample Date: 02/18/03 Matrix: Liquid Result Flag Parameter POL DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Stoddard Solvent ND 50 5 250 μg/L 02/20/03 02/26/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 72.0 35 - 125 Extraction performed with standard silica gel cleanup. TPH as Stoddard Solvent quantitated from C8-C13. Comment: **Parameter** Result Flag DF **PQL** DLR Units Extraction Analysis QC Batch ID Method Date Date TPH as Transformer Oil 5 ND 250 1250 02/20/03 µg/L 02/26/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 72.0 35 - 125

Extraction performed with standard silica gel cleanup. TPH as Trandformer Oil (C11-C34).

DF = Dilution Factor

Comment:

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

#### Entech Analytical Labs, Inc. Chain of Custody / Analysis Request 3334 Victor Court (408) 588-0200 Santa Clara, CA 95054 (408) 588-0201 - Fax Attention to: WRIGHT Phone No.: Purchase Order No (Regd).: DRAO -Send Invoice to (if Different) (570) 769-3563 Company Name: Project Number: CANDRON - COLE (510)337-3714 2017 Mailing Address: Project Name: LOI W: ATLANTIC NE. DIG #90 Billing Address (if Different) A MANSIT MYD. OIL State: Project Location: EMENYVILLE Field Org. Code: Turn Around Time ☐ Same Day 1 Day □ 2 Day 3 Day Global ID: ☐ 4 Day ☐ 5 Day Standard (10 Day) Order ID: Containers Sampling Grab Client ID: Field PT Lab. No. Date Time جي / Remarks 33576-001 1420 002 1440 2 003 3 HEL × 004 1525 3 Hel 1525 Halinabished Dx: 2/19/03 [:17 Bu Special Instructions or Comments □ NPDES Detection Limits ☐ EDD Report Required Relinquished by: Time: □ EDF Report Required Relinquished by: □ PDF File Required Received by: lMetals: Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Relinquished by: TI, Sn, Ti, V, Zn, W: RCRA-8 CAM-17 Plating PPM-13 🔲

# Entech Analytical Labs, Inc. RECEIVED MAR 0 4 2003

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

February 26, 2003

Brad Wright Cameron-Cole 101 W. Atlantic Ave., Bldg#90 Alameda, CA 94501

Order:

33376

Date Collected:

2/18/03

Project Name:

AC Transit Hyd. Oil

Date Received:

2/19/03

**Project Number:** 

2017

P.O. Number:

2017

**Project Notes:** 

On February 19, 2003, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix Liquid

**Test** 

Method

PDF

PDF

TPH as Diesel

EPA 8015 MOD. (Extractable)

TPH as Gasoline

EPA 8015 MOD. (Purgeable)

TPH, Extractable w/ Si-Gel Std

EPA 8015 MOD. (Extractable)

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

Patti Sandrock

QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03 Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

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Order ID:	33376		Lab S	ample l	<b>D</b> : 333	76-001		Client Sai	mple ID: S	B-1	<del></del> -
Sample Time:	2:20 PM		Sar	nple Da	te: 2/18	3/03			Matrix: L	iquid	
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil		ND		10	250	2500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOI (Extractable)
						Surrog	gate	Suri	rogate Recover	гу Сог	trol Limits (%)
						o-Terph	enyl		71.0		35 - 125
Comment:	Extraction p	erformed v	with standa	ırd silica g	gel cleanuj	p.					
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		ND		10	50	500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog		Surr	ogate Recover	y Con	trol Limits (%)
						o-Terphe	nyl		71.0	2	35 - 125
Comment:	Extraction p	erformed v	vith standa	rd silica g	el cleanup	<b>.</b>					
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Heating Oil		ND		10	250	2500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ite	Surre	gate Recovery	/ Cont	rol Limits (%)
						o-Terphe	nyl		71.0	3	5 - 125
Comment:	Extraction pe	rformed w	ith standar	d silica ge	el cleanup.						
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil		ND		10	250	2500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	te	Surro	gate Recovery	Conta	ol Limits (%)
						o-Terpher	nyl		71.0	35	5 - 125
Comment:	Extraction pe	rformed w	ith standar	d silica ge	l cleanup.						
Parameter	•	Result	Flag	DF	PQL	DLR	Units	Extraction	Analysis	QC Batch ID	Method
								Date	Date	-	
TPH as Jet Fuel (Jet A)		ND		10	50	500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
		·····				Surrogat			gate Recovery		ol Limits (%)
DF = Dilution Factor			Not Detec	ted		DLR =	Detection I	Limit Reported	P	QL = Practical Q	uantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376

Lab Sample ID: 33376-001

Client Sample ID: SB-1

Sample Time: 2:20 PM

Sample Date: 2/18/03

Matrix: Liquid

71.0

35 - 125

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Kerosene	ND		10	50	500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surroga	te	Surr	ogate Recovery	Conti	ol Limits (%)
					o-Terphe	nyl		71.0	3.5	5 - 125

o-Terphenyl

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	ND		10	250	2500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD (Extractable)
					Surroga o-Terphe		Surr	ogate Recovery 71.0	Contr 35	rol Limits (%) 5 - 125

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Stoddard Solvent	17000		10	50	500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surroga o-Terphe		Surr	ogate Recovery 71.0	Cont	rol Limits (%)

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Transformer Oil	ND		10	250	2500	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD (Extractable)
					Surroga o-Terphe		Surr	ogate Recovery 71.0	Contraction 33	rol Limits (%)

Comment:

Extraction performed with standard silica gel cleanup.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03 Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

**Certified Analytical Report** 

Order ID:	33376		Lab S	ample ]	<b>D:</b> 333	76-002		Client Sar	nple ID: Si	3-2	
Sample Time:	2:40 PM		San	iple Da	te: 2/18	8/03			Matrix: Li	quid	
Parameter	R	esult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil		ND		1	250	250	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOI (Extractable)
						Surrog	gate	Suri	ogate Recover	y Con	trol Limits (%)
						o-Terph	enyl		68.0	<u>:</u>	35 - 125
Comment:	Extraction perfo	rmed v	vith standa	rd silica g	gel cleanup	p.					
Parameter	Re	sult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		ND		1	50	50	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog	ate	Surr	ogate Recover	y Cont	rol Limits (%)
						o-Terpho	enyi		68.0	3	5 - 125
Comment:	Extraction perfor	rmed w	rith standaı	rd silica g	el cleanup	<b>).</b>					
Parameter	Re	sult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Heating Oil		ND		1	250	250	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ate	Surre	gate Recovery	Conti	rol Limits (%)
						o-Terphe	nyl		68.0	3:	5 - 125
Comment:	Extraction perfor	med w	ith standar	d silica ge	el cleanup.	-					
Parameter	Res	ult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil		ND		1	250	250	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ite	Surro	gate Recovery	Contr	ol Limits (%)
						o-Terphe	nyl		68.0	35	- 125
Comment:	Extraction perfor	med wi	th standard	d silica ge	el cleanup.						
Parameter	Res	ult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Jet Fuel (Jet A)		ND		1	50	50	μ <b>g/L</b>	2/20/03	2/21/03	DW4307A	EPA 8015 MOD. (Extractable)
<u> </u>						Surroga	te	Surre	gate Recovery	Contro	ol Limits (%)
DF = Dilution Factor		ND=	Not Detec	ted		DLR =	Detection :	Limit Reported		QL = Practical Q	

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376

Lab Sample ID: 33376-002

Client Sample ID: SB-2

Sample Time: 2:40 PM

Sample Date: 2/18/03

Matrix: Liquid

68.0

35 - 125

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Kerosene	ND		1	50	50	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surroga o-Tembe		Surre	ogate Recovery	Conti	ol Limits (%)

o-Terphenyi

Comment: Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	ND		1	250	250	μ <b>g/L</b>	2/20/03	2/21/03	DW4307A	EPA 8015 MOD (Extractable)
					Surroga o-Terphe		Surr	ogate Recovery 68.0		rol Limits (%) 5 - 125

Comment: Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Stoddard Solvent	1400		1	50	50	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD (Extractable)
					Surroga o-Terphe		Surre	ogate Recovery 68.0		rol Limits (%)

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Transformer Oil	ND		1	250	250	μg/L	2/20/03	2/21/03	DW4307A	EPA 8015 MOD (Extractable)
					Surroga	ite	Surr	ogate Recovery	Contr	ol Limits (%)
					o-Terphe	nyl		68.0	35	5 - 125

Extraction performed with standard silica gel cleanup.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/27/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

**Certified Analytical Report** 

Order ID:	33376	Lab S	ample :	<b>ID:</b> 333	76-003		Client San	nple ID: Si	3-3	
Sample Time:	2:55 PM	Sar	nple Da	ite: 02/	18/03			Matrix: Li	quid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil	ND		20	250	5000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOI (Extractable)
					Surrog	•	Surr	ogate Recover	y Con	trol Limits (%)
					o-Terph	enyl		90.0	;	35 - 125
Comment:	Extraction performed	with stands	ard silica	gel cleanu <sub>l</sub>	<b>o</b> .					
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	9500	х	20	50	1000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surreg	ate	Surro	gate Recovery	Cont	rol Limits (%)
					o-Terohe	envl		90.0		5 - 125
						•		•	_	
Comment:	Not TPH as Diesel: un silica gel cleanup.	identified h	nydrocarbo	on (C9-19)	•	•	quanitation ran			
Comment: Parameter	Not TPH as Diesel: un silica gel cleanup. Result	identified h	DF	on (C9-19)	•	•	quanitation ran  Extraction  Date			
	silica gel cleanup.	· · · · · · · · · · · · · · · · · · ·			) in the TP	H as Diesel	Extraction	ge. Extraction	performed with s	tandard
Parameter	silica gel cleanup.  Result	· · · · · · · · · · · · · · · · · · ·	DF	PQL	) in the TP	H as Diesel Units μg/L	Extraction Date 02/20/03	ge. Extraction  Analysis Date	QC Batch ID  DW4307A	Method  EPA 8015 MOD.
Parameter	silica gel cleanup.  Result	· · · · · · · · · · · · · · · · · · ·	DF	PQL	DLR	H as Diesel Units μg/L	Extraction Date 02/20/03	Analysis Date 02/22/03	QC Batch ID  DW4307A  Conta	Method  EPA 8015 MOD. (Extractable)
Parameter TPH as Heating Oil	silica gel cleanup.  Result	Flag	<b>DF</b> 20	PQL 250	DLR 5000 Surrogz o-Terphe	H as Diesel Units μg/L	Extraction Date 02/20/03	Analysis Date 02/22/03 gate Recovery	QC Batch ID  DW4307A  Conta	Method  EPA 8015 MOD. (Extractable) rol Limits (%)
Parameter TPH as Heating Oil	Result	Flag	<b>DF</b> 20	PQL 250	DLR 5000 Surrogz o-Terphe	H as Diesel Units μg/L	Extraction Date 02/20/03	Analysis Date 02/22/03 gate Recovery 90.0	QC Batch ID  DW4307A  Conta	Method  EPA 8015 MOD. (Extractable) rol Limits (%)
Parameter TPH as Heating Oil Comment:	Result  ND  Extraction performed v	Flag vith standar	DF 20 ed silica g	PQL 250	DLR 5000 Surrogs o-Terphe	Units μg/L nyl	Extraction Date 02/20/03 Surro	Analysis Date 02/22/03 gate Recovery 90.0	QC Batch ID DW4307A Contr	Method  EPA 8015 MOD.  (Extractable) rol Limits (%) 5 - 125
Parameter  TPH as Heating Oil  Comment:  Parameter	Result  ND  Extraction performed v	Flag vith standar	DF 20 rd silica g	PQL 250 et cleanup.	DLR 5000 Surrogs o-Terphe	Units  µg/L  units  µg/L  units	Extraction Date 02/20/03 Surroy  Extraction Date 02/20/03	Analysis Date 02/22/03 gate Recovery 90.0  Analysis Date	QC Batch ID DW4307A Conta 33 QC Batch ID DW4307A	Method  EPA 8015 MOD.  (Extractable) rol Limits (%) 5 - 125  Method  EPA 8015 MOD.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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Patti Sandrock, QA/QC Manager

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501 Attn: Brad Wright Date: 2/27/03 Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

				Cert	illea A	naiyuc	al Repo	ort			
Order II	<b>):</b> 33376		Lab S	ample	ID: 333	76-003		Client Sar	nple ID: S	B-3	
Sample Time	e: 2:55 PM		San	nple Da	ite: 02/	18/03			Matrix: Li	quid	
Parameter	R	esult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Jet Fuel (Jet	A)	ND		20	50	1000	μ <b>g/L</b>	02/20/03	02/22/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog	gate	Surr	ogate Recover	y Con	trol Limits (%)
						o-Terph	ienyl		90.0	:	35 - 125
Comment:	Extraction perfo	rmed v	vith standa	rd silica	gel cleanu	р.					
Parameter	Re	sult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Kerosene		ND		20	50	0001	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surrog	ate	Surro	gate Recovery	y Cont	rol Limits (%)
						o-Terphe	enyl		90.0	3	5 - 125
Comment:	Extraction perfor	med w	rith standaı	d silica g	gel cleanup	)_					
Parameter	Res	sult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	34	1000	x	20	250	5000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga	ıte	Surro	gate Recovery	Contr	ol Limits (%)
						o-Terphe	nyl		90.0	35	5 - 125
Comment:	Not a TPH as Morange.Extraction	tor Oil perfort	pattern; V	alue due andard s	to an unkt ilica gel el	own hydro eanup.	ocarbon (C1	9 - C40), in the	: Motor Oil qua	ıntitation	
Parameter	Res	ult	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Stoddard Solv	rent	ND		20	50	1000	μg/L	02/20/03	02/22/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga		Surrog	ate Recovery	Contro	ol Limits (%)
						o-Terpher	ıyl		90.0	35	- 125
Comment:	Extraction perform	ned wi	th standard	l silica ge	el cleanup.						

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 02/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376 Lab Sample ID: 33376-003 Client Sample ID: SB-3 Sample Time: 2:55 PM Sample Date: 02/18/03 Matrix: Liquid DF Result Flag PQL DLR Units Parameter Extraction Analysis QC Batch ID Method Date Date TPH as Transformer Oil ND 20 250 5000 02/20/03 02/22/03 DW4307A EPA 8015 MOD. (Extractable) Surrogate Surrogate Recovery Control Limits (%) o-Terphenyl 90.0 35 - 125

Comment:

Extraction performed with standard silica gel cleanup.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID:	33376		Lab S	ample l	<b>D:</b> 333	76-004		Client Sar	mple ID: S	3-6	
Sample Time:	3:25 PM		San	nple Da	te: 2/18	3/03			Matrix: Li	quid	
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Bunker Oil		ND		5	250	1250	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD (Extractable)
						Surrog	ate	Suri	rogate Recover	y Con	trol Limits (%)
						o-Terph	enyl		72.0		35 - 125
Comment:	Extraction p	erformed v	vith standa	ard silica g	el cleanur	<b>3</b> .					
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		ND		5	50	250	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surrog		Surr	ogate Recover	у Сол	irol Limits (%)
						o-Terphe	enyl		72.0	3	5 - 125
Comment:	Extraction p	erformed w	ith standa	rd silica g	el cleanup						
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Heating Oil		ND		5	250	1250	μ <b>g/L</b>	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroge		Surre	gate Recovery	Cont	rol Limits (%)
						o-Terphe	nyi		72.0	3.	5 - 125
Comment:	Extraction po	erformed w	ith standar	d silica ge	el cleanup.						
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil		ND		5	250	1250	μ <b>g/L</b>	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surroga		Surro	gate Recovery	Contr	ol Limits (%)
						o-Terpher	ayl		72.0	35	- 125
Comment:	Extraction pe	rformed wi	th standar	d silica ge	l cleanup.						
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Jet Fuel (Jet A)		ND		5	50	250	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
						Surrogat			gate Recovery	Contro	ol Limits (%)
DF = Dilution Factor		ND=	Not Detec	ted		DLR =	Detection I	Limit Reported	Po	QL = Practical Q	antitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017

P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 33376

Lab Sample ID: 33376-004

Client Sample ID: SB-6

Sample Time: 3:25 PM

Sample Date: 2/18/03

Matrix: Liquid

72.0

35 - 125

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Kerosene	ND		5	50	250	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surroga	ıte	Surre	ogate Recovery	Contr	rol Limits (%)
					o-Terphe	nyl		72.0	3:	5 - 125

o-Terphenyl

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	ND		5	250	1250	μ <b>g/L</b>	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surrogate o-Terphenyl		Surrogate Recovery 72.0		Control Limits (%) 35 - 125	

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Stoddard Solvent	ND		5	50	250	μg/L	2/20/03	2/26/03	DW4307A	EPA 8015 MOD. (Extractable)
					Surroga o-Terphe		Surr	ogate Recovery 72.0		rol Limits (%) 5 - 125

Comment:

Extraction performed with standard silica gel cleanup.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Transformer Oil	ND	5	5	5 250	1250 μg/L Surrogate o-Terphenyl		2/20/03 2/26/03		DW4307A EPA 8015 N (Extractal	
							Surrogate Recovery 72.0		•	

Comment:

Extraction performed with standard silica gel cleanup.

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, OA/OC Manager

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Cameron-Cole

101 W. Atlantic Ave., Bldg#90

Alameda, CA 94501

Attn: Brad Wright

Date: 2/27/03

Date Received: 2/19/03

Project Name: AC Transit Hyd. Oil

Project Number: 2017 P.O. Number: 2017

Sampled By: Amir Mostazov

Certified Analytical Report

Order ID: 333	Order ID: 33376 Lab Sample						Client San					
Sample Time: 3:2	5 PM	Sam	ple Dat	te: 2/18/	/03	Matrix: Liquid						
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method		
TPH as Gasoline	630	x	1	50	50	μg/L	N/A	2/20/03	WGC62759	EPA 8015 MOD. (Purgeable)		
					Surroga	ite	Surr	ogate Recovery	Cont	rol Limits (%)		
				4-B	romofluoro	benzene		160.8	6:			
				aaa	a-Trifluoro	toluene		82.1	6:			
Comment: Repo	orted TPH as Gasol	line value i	s the resul	lt of heavy	end hydro	carbons wi	thin the TPH as	Gasoline quant	itation range but	not		

typical of TPH as Gasoline.

Comment:

Surrrogate recovery for BFB due to matrix interference. See TFT result.

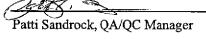
DF = Dilution Factor

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#### STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
(Flag)	
U	Compound was analyzed for but not detected
J	Estimated value for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
В	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
$\mathbf{X}$	Results within quantitation range; chromatographic pattern not typical of fuel
Y	PQL is reported below MDL but verified against a standard analyzed at the client requested reporting
	limit of 0.5 ppb
С	Reported results affected by contaminated reagent materials. See narrative for futher explanation

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#### **Quality Control Results Summary**

QC Batch #:

DW4307A

Matrix:

Liquid

Units:

μg/L

Date Analyzed:

2/21/03

Paramete	r Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result		% Recovery	RPD	RPD Limits	Recovery Limits
Test:	TPH as Diesel w/ S										
TPH as Di	esel EPA 8015 M	I ND		1000		1082.96	LCS	108.3			43.9 - 125.0
	Surrogate		Surrog	ate Recover	y	Control 1	Limits (%)	<u> </u>			
_	o-Terphenyl			102.0		29 -	142				
Test:	TPH as Diesel w/ Si	-Gel Std									
TPH as Die	esel EPA 8015 M	ND		1000		982.66	LCSD	98.3	9.71	30.00	43.9 - 125.0
Γ	Surrogate		Surroga	ate Recovery	,	Control I	Limits (%)				
- 1	o-Terphenyl			92.0		29 -	142				

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#### **Quality Control Results Summary**

QC Batch #:

WGC62759

Matrix:

Liquid

Units:

uo/T

Date Analyzed:

2/20/03

Parame	ter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline TPH as Gasoline EPA 8015 M ND				234.99	LCS	94.0		•	65.0 - 135.0			
		Surrogate 4-Bromofluorobe	nzene	_	ate Recover 92.8	у	Control Limits (%) 65 - 135					
Test: TPH as C		as Gasoline EPA 8015 M	ND		250		231.82	LCSD	92.7	1.36	25.00	65.0 - 135.0
		Surrogate 4-Bromofluorober	izene	U	te Recovery	7	Control I	imits (%) 135			· • • • • • • • • • • • • • • • • • • •	

#### **Entech Analytical Labs, Inc.** Chain of Custody / Analysis Request 3334 Victor Court (408) 588-0200 Santa Clara, CA 95054 (408) 588-0201 - Fax Phone No.: (570) 769 - 3563 Attention to: Purchase Order No (Rend): Send Invoice to (if Different) WRIGHT DILAD Company Name: Fax No.: Project Number: Company (\$10)357-3974 Monther - Cole 2017 Mailing Address: Project Name: Billing Address (if Ditterent) WE WE THANK NE BLE #70 AT TRANSIT HYD. OIL Zip: 4454 Project Location: State EMERYVILLE Field Org. Code: **Turn Around Time** ☐ Same Day ☐ 1 Day 2 Day ☐ 3 Day Global ID: ☐ 5 Day ☐ 4 Day Preservative Composite Grab Order ID: Containers Sampling Client ID: Field PT Lab. No. Date Time Remarks 33376 001 2/18 1420 002 1440 2 X 003 1455 HEL X 004 1525 3 HCL 1525 Dale: Z/19/03 (:17/M Special Instructions or Comments AW ☐ NPDES Detection Limits Relinquished by: ☐ EDD Report Required ☐ EDF Report Required Relinguished by: Metals: ☐ PDF File Required Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Relinquished by: Received by: TI, Sn, Ti, V, Zn, W: RCRA-8 🔲 CAM-17 🔲 Plating 🔲 PPM-13 □ LUFT-5