



**PENNZOIL-QUAKER STATE**  
C O M P A N Y

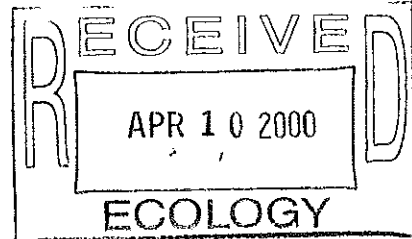


Jiffy Lube International, Inc.  
700 Milam, P. O. Box 2967 • Houston, TX 77252-2967  
713/546-8426 • Fax: 713/546-8505  
JerryGarcia@associates.PZLQS.com

SW  
6354  
U-10033

Gerardo "Jerry" H. Garcia  
Consulting Hydrogeologist  
Environmental, Safety, Health & DOT Compliance

April 3, 2000



State of Washington  
Department of Ecology  
P.O. Box 47655  
Olympia, WA 98504-7655

**CERTIFIED MAIL P-261-955-880**  
**RETURN RECEIPT REQUESTED**

**SUBJECT:** Quarterly Groundwater Monitoring Report  
Jiffy Lube International, Inc. (JLI) Store No. 793  
1718 East 1<sup>st</sup> Street  
Port Angeles, Washington 98362  
Site ID Number 006354

Dear Sir or Madam:

Enclosed is one copy of the quarterly groundwater monitoring report. Based on the results of the latest sampling event, dissolved-phase concentrations of total petroleum hydrocarbons (TPH) as diesel, TPH as heavy oil, and total chromium were below the Model Toxics Control Act Method A Compliance (MTCAMAC) cleanup levels.

If you have any questions, please call me at (713) 546-8426 if you need any additional information.

Sincerely,

*Gerardo H. Garcia*

Enclosure

C: Bonnie Smith, PQS  
C w/o enclosure: Bill Hughes, IT Corporation, Renton, WA  
Dan McQuillen, PQS  
Frank Jeanson, PQS

GHG:mak

File: JLI#793 - General  
docname: JLI/Washington/ 793/Q1 2000 rpt trans ltr.doc

MAR 20 2000

**JIFFY LUBE INTERNATIONAL, INC.  
QUARTERLY MONITORING REPORT  
QUARTER 1, 2000**

SW 6354

U-10033

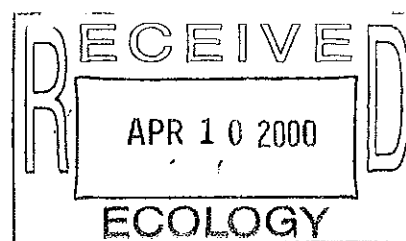
**PROJECT NUMBER:** 793  
**PROJECT NAME:** Jiffy Lube – Port Angeles  
**PROJECT ADDRESS:** 1718 East First Street  
Port Angeles, WA

**MONITORING DATE:** January 26, 2000  
**LIST OF WELLS SAMPLED:** MW-1, MW-2, and MW-3  
**ANALYTICAL METHODS/PARAMETERS:** Washington Department of Ecology WTPH-as-diesel extended/TPH-d, TPH-o and chromium  
**LAB NAME/LOCATION:** North Creek Analytical, Inc./Bothell, WA  
**CONSULTANT NAME/LOCATION:** IT Corporation/Renton, WA

**TYPE OF LAND USE:** Commercial

**RESULTS/DISCUSSION:**

- TPH-o was not detected in samples collected from monitoring wells MW-1, MW-2 and MW-3 above the laboratory's method detection limit.
- TPH-d was not detected in sample collected from monitoring wells MW-2 and MW-3 above the laboratory's method detection limit.
- The TPH-d concentrations in the sample collected from monitoring well MW-1 was 321 micrograms per liter ( $\mu\text{g/l}$ ). This is less than the Washington Department of Ecology Model Toxic Control Act (MTCA) Method A Compliance Cleanup Levels [CCL(a)s] of 2,000  $\mu\text{g/l}$ .
- Dissolved chromium was reported at 1.32  $\mu\text{g/l}$  and 1.15  $\mu\text{g/l}$  in samples collected from monitoring wells MW-1 and MW-2, respectively. These concentrations are below the CCL(a) of 50.0  $\mu\text{g/l}$ .
- Chromium was not detected above the laboratory's method detection limit in the sample collected from monitoring well MW-3.
- Groundwater elevations in the groundwater monitoring wells ranged from 90.68 to 95.32 feet relative to an arbitrary on site benchmark. The groundwater flow direction is northeast at a gradient of approximately 0.047 feet per foot.
- The groundwater flow direction was consistent with the three previous sampling events.



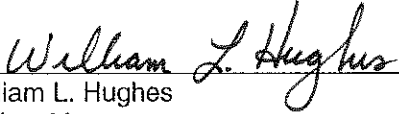
**PLANNED ACTIVITIES:**

Second Quarter 2000 sampling event – April 2000

**ATTACHMENTS:**

Attachment A: Table 1 Historical Groundwater Gauging Data  
Table 2 Historical Groundwater Analytical Results  
Attachment B: Figure 1 Site Location Map  
Figure 2 Site Map  
Figure 3 Groundwater Gradient Results Map  
Attachment C: Laboratory Analytical Reports

Prepared by:  
**IT Corporation**

  
\_\_\_\_\_  
William L. Hughes  
Project Manger



## ATTACHMENT A

**Table 1**  
**Summary of Groundwater Elevation Data**  
**Jiffy Lube Store No. 793**  
**1718 East First Street**  
**Port Angeles, Washington**

Monitoring Well	Date	Top Of Well Casing (ft)	Depth To Water (ft)	Groundwater Elevation (ft)
MW-1	09/22/98	99.36	6.76	92.60
	01/12/99	99.36	4.18	95.18
	04/20/99	99.36	4.86	94.50
	08/03/99	99.36	4.98	94.38
	01/26/00	99.36	4.5	94.86
MW-2	09/22/98	99.52	7.20	92.32
	01/12/99	99.52	4.63	94.89
	04/20/99	99.52	4.72	94.80
	08/03/99	99.52	4.87	94.65
	01/26/00	99.52	4.2	95.32
MW-3	09/22/98	97.09	7.63	89.46
	01/12/99	97.09	7.69	89.40
	04/20/99	97.09	7.73	89.36
	08/03/99	97.09	8.02	89.07
	01/26/00	97.08	6.4	90.68

Note: Elevations based on a temporary datum (0,0) chosen at the southeastern corner of the Jiffy Lube building located on site. Assumed initial elevation is 100 feet.

Table 2  
Summary of Groundwater Sample Analytical Results  
Jiffy Lube Store No. 793  
1718 East First Street  
Port Angeles, Washington  
(micrograms per liter)

Monitoring Well	Date Sampled	TPH-as-Diesel	TPH-as-Heavy Oil	Total Chromium
MW-1	09-22-98	1,750	<750	NA
	01/12/99	730	<750	<b>565*</b>
	04/20/99	487	<750	3.09
	08/03/99	664	<750	1.01
	01/26/00	321	<750	1.32
MW-2	09-22-98	<250	<750	NA
	12/1/99	<250	<750	<b>580*</b>
	04/20/99	<250	<750	4.34
	08/03/99	<250	<750	1.08
	01/26/00	<250	<750	1.15
MW-3	09-22-98	<250	<750	NA
	12/1/99	<270	<750	<b>269*</b>
	04/20/99	257	<750	3.90
	08/03/99	343	<750	1.71
	01/26/00	<250	<750	<1.00
MTCA CCL(a)		1,000	1,000	50

Explanation

TPH = Total Petroleum Hydrocarbons

< = less than the method detection limits

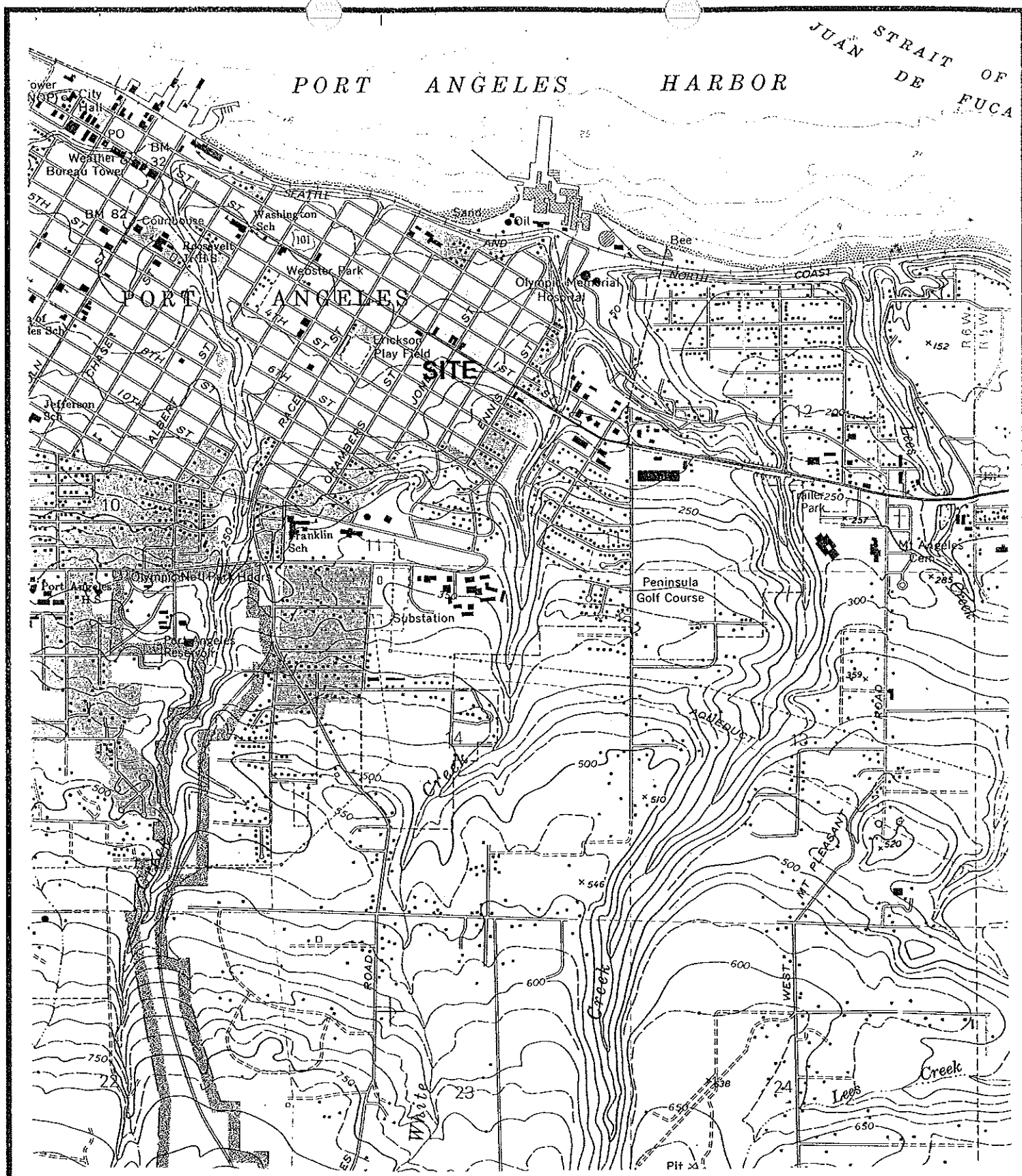
MTCA CCL(a) = Model Toxics Control Act method A Compliance Cleanup Level

BOLD = Concentration exceeds the MTCA-CCL(A)

\* Sample acidified prior to filtering.



## **ATTACHMENT B**



**IT CORPORATION**

SOURCE: U.S.G.S. 7.5' QUAD SHEET  
PORT ANGELES, WASHINGTON  
PHOTOREVISED 1985



SCALE:

0 FEET 2000

## SITE LOCATION MAP

CLIENT:

JIFFY LUBE INTERNATIONAL, INC.  
STORE NO. 793

DATE:

02/23/99

LOCATION:

1718 EAST FIRST STREET  
PORT ANGELES, WASHINGTON

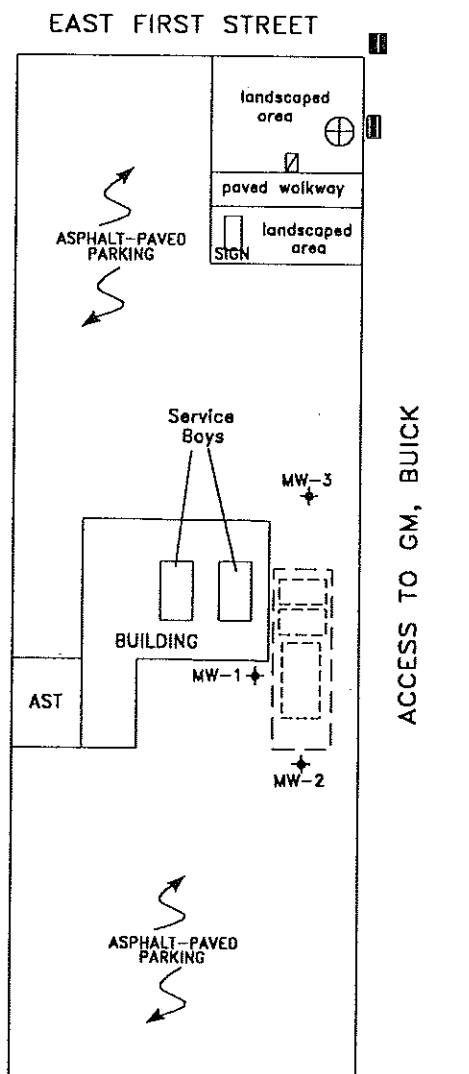
FIGURE:

1



# EXPLANATION

- MW-1 + GROUNDWATER MONITORING WELL
- UST EXCAVATION
- UST
- STORM DRAIN
- ⊕ SEWER MANHOLE
- WATER METER



IT CORPORATION

SITE MAP

CLIENT:

JIFFY LUBE  
STORE NO. 793

FILE:

FIG2-V12.DWG

PROJECT NO:  
106849

PM

RG/PE

REV:

2

LOCATION:

1718 EAST FIRST STREET  
PORT ANGELES, WASHINGTON

DES:

WH

DET:

MLR

DATE:

2/23/99

FIGURE:

2

# EXPLANATION

MW-1  GROUNDWATER MONITORING WELL

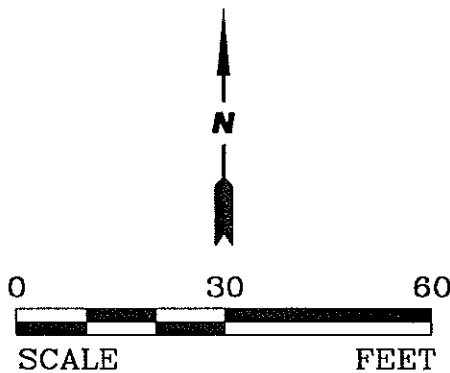
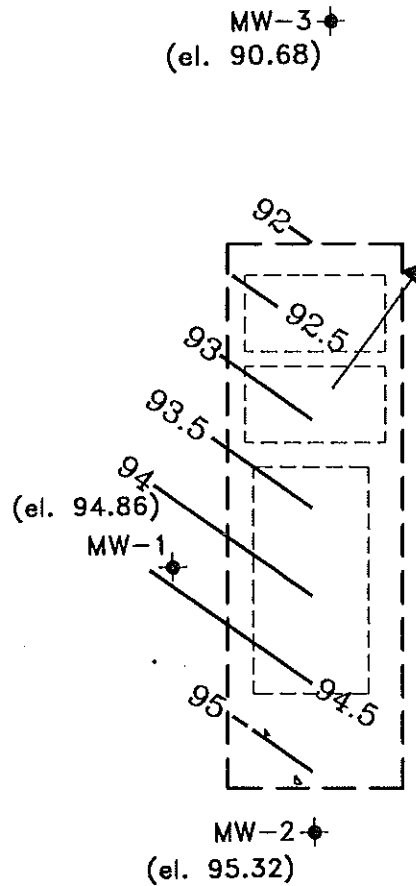
— — — UST EXCAVATION

- - - - - FORMER USTs

 GROUNDWATER FLOW DIRECTION

92  GROUNDWATER CONTOUR  
CONTOUR INTERVAL = 0.5 FEET

(el. 94.86) GROUNDWATER ELEVATION



**IT CORPORATION**

555 SOUTH RENTON VILLAGE  
PLACE, SUITE 700  
RENTON, WA 98055-3295  
(425)228-9645 TEL  
(425)228-9793 FAX

## GROUNDWATER GRADIENT MAP (01/26/2000)

CLIENT:	JIFFY LUBE STORE NO. 793		FILE:	793-f3-q3.DWG	PROJECT NO:	106849	PM	RG/PE
			REV:	2				BH
LOCATION:	1718 EAST FIRST STREET PORT ANGELES, WASHINGTON		DES:	BH	DET:	TFR	DATE:	02/21/2000
						FIGURE:		3

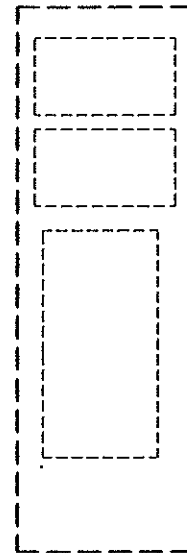
MW-3: TPH-d- Not Detected  
 TPH-o- Not Detected  
 Chromium- Not Detected

MW-3



MW-1: TPH-d- 321  $\mu\text{g/L}$   
 TPH-o- Not Detected  
 Chromium- 1.32  $\mu\text{g/L}$

MW-1



MW-2

MW-2: TPH-d- Not Detected  
 TPH-o- Not Detected  
 Chromium- 1.15  $\mu\text{g/L}$



0 70 140  
 SCALE FEET

EXPLANATION

MW-1 GROUNDWATER MONITORING WELL

----- UST EXCAVATION

----- FORMER USTs

$\mu\text{g/L}$  MICROGRAMS PER LITER



IT CORPORATION

GROUNDWATER ANALYTICAL  
 RESULTS (1/26/2000)

CLIENT: JIFFY LUBE  
 STORE NO. 793

FILE: 793f4-q1-00.DWG

PROJECT NO:  
 106849

PM  
 AMC

RG/PE

LOCATION: 1718 EAST FIRST STREET  
 PORT ANGELES, WASHINGTON

REV:  
 0

DES: WH

DET: TFR

DATE: 03/09/2000

FIGURE:

4



## ATTACHMENT C



Seattle 18939 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
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503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

IT Corporation - Renton  
555 South Renton Village Place, Ste 700  
Renton WA, 98055

Project: Jiffy Lube #793  
Project Number: 105317  
Project Manager: Bill Hughes

**Reported:**  
02/03/00 11:38

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	B0A0389-01	Water	01/22/00 13:40	01/27/00 15:45
MW-2	B0A0389-02	Water	01/22/00 13:25	01/27/00 15:45
MW-3	B0A0389-03	Water	01/22/00 13:10	01/27/00 15:45

RECEIVED FEB 7 2000

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Steve Davis, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Page 1 of 6



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IT Corporation - Renton  
555 South Renton Village Place, Ste 700  
Renton WA, 98055

Project: Jiffy Lube #793  
Project Number: 105317  
Project Manager: Bill Hughes

Reported:  
02/03/00 11:38

**Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (B0A0389-01) Water Sampled: 01/22/00 13:40 Received: 01/27/00 15:45</b>									
Diesel Range Hydrocarbons	0.321	0.250	mg/l	1	0A28008	01/28/00	02/01/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	75.0 %	50-150			"	"	"	"	
<b>MW-2 (B0A0389-02) Water Sampled: 01/22/00 13:25 Received: 01/27/00 15:45</b>									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	0A28008	01/28/00	01/31/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	84.2 %	50-150			"	"	"	"	
<b>MW-3 (B0A0389-03) Water Sampled: 01/22/00 13:10 Received: 01/27/00 15:45</b>									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	0A28008	01/28/00	02/01/00	WTPH-D	
Heavy Oil Range Hydrocarbons	ND	0.750	"	"	"	"	"	"	
Surrogate: 2-FBP	107 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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IT Corporation - Renton  
555 South Renton Village Place, Ste 700  
Renton WA, 98055

Project: Jiffy Lube #793  
Project Number: 105317  
Project Manager: Bill Hughes

Reported:  
02/03/00 11:38

**Dissolved Metals by EPA 6000/7000 Series Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (B0A0389-01RE1) Water</b> Sampled: 01/22/00 13:40 Received: 01/27/00 15:45									
Chromium	0.00132	0.00100	mg/l	1	0B01030	02/01/00	02/02/00	EPA 6020	
<b>MW-2 (B0A0389-02RE1) Water</b> Sampled: 01/22/00 13:25 Received: 01/27/00 15:45									
Chromium	0.00115	0.00100	mg/l	1	0B01030	02/01/00	02/02/00	EPA 6020	
<b>MW-3 (B0A0389-03RE1) Water</b> Sampled: 01/22/00 13:10 Received: 01/27/00 15:45									
Chromium	ND	0.00100	mg/l	1	0B01030	02/01/00	02/02/00	EPA 6020	

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IT Corporation - Renton  
555 South Renton Village Place, Ste 700  
Renton WA, 98055

Project: Jiffy Lube #793  
Project Number: 105317  
Project Manager: Bill Hughes

Reported:  
02/03/00 11:38

**Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended) - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0A28008: Prepared 01/28/00 Using EPA 3520C/600 Series</b>										
<b>Blank (0A28008-BLK1)</b>										
Diesel Range Hydrocarbons	ND	0.250	mg/l							
Heavy Oil Range Hydrocarbons	ND	0.750	"							
Surrogate: 2-FBP	0.338		"	0.320		106	50-150			
<b>LCS (0A28008-BS1)</b>										
Diesel Range Hydrocarbons	2.24	0.250	mg/l	2.00		112	60-140			
Surrogate: 2-FBP	0.418		"	0.320		131	50-150			
<b>Duplicate (0A28008-DUP1)</b>										
<b>Source: B0A0389-01</b>										
Diesel Range Hydrocarbons	0.263	0.250	mg/l		0.321			19.9	44	
Heavy Oil Range Hydrocarbons	ND	0.750	"		0.215				44	
Surrogate: 2-FBP	0.499		"	0.627		79.6	50-150			

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Project: Jiffy Lube #793  
Project Number: 105317  
Project Manager: Bill Hughes

Reported:  
02/03/00 11:38

**Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0B01030: Prepared 02/01/00 Using EPA 3005A</b>									
<b>Blank (0B01030-BLK1)</b>									
Chromium	ND	0.00100	mg/l						
<b>LCS (0B01030-BS1)</b>									
Chromium	0.209	0.00100	mg/l	0.200		105 80-120			
<b>Matrix Spike (0B01030-MS1)</b>									
					<b>Source: B0A0389-01RE1</b>				
Chromium	0.230	0.00100	mg/l	0.200	0.00132	114 75-125			
<b>Matrix Spike Dup (0B01030-MSD1)</b>									
					<b>Source: B0A0389-01RE1</b>				
Chromium	0.231	0.00100	mg/l	0.200	0.00132	115 75-125	0.434	20	

North Creek Analytical - Bothell

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Project: Jiffy Lube #793  
Project Number: 105317  
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**Reported:**  
02/03/00 11:38

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

North Creek Analytical - Bothell

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Steve Davis, Project Manager

**DISTRIBUTION:**

Consultant - Complete header & body and retain last copy. Send remaining copies to lab. Lab - Process and send original to Pennzoil Project Manager.

## CHAIN OF CUSTODY RECORD

Page            of           Page            of           

PENNZOIL COMPANY INFORMATION		PROJECT LOCATION INFORMATION		CONSULTANT INFORMATION		LABORATORY INFORMATION	
PROJECT MANAGER Bill Hughes	PROJECT NUMBER 105317	COMPANY I T Corp.	NAME	PROJECT MANAGER Bill Hughes	ADDRESS	STATE WA	ZIP
ADDRESS 555 Rte 116, Ste 110	PROJECT NAME Jelly Tube 793	ADDRESS	CITY Renton	PHONE NUMBER (425) 278-9793	AIR BILL NUMBER	NUMBER OF COOLERS	
CITY Houston Tx	ADDRESS 1713 East 116 Street	CITY Renton	STATE WA	FAX NUMBER (425) 278-9793			
STATE TX	CITY Port Angeles	STATE WA	ZIP	PHONE NUMBER 8422			
ZIP 4655	STATE WA	ZIP		FAX NUMBER 4773			

## TURNAROUND TIME

10 WORKING DAYS

5 WORKING DAYS

24 HOURS

☐ OTHER (Specify):

[illegible]

(1) RELINQUISHED BY SIGNATURE <i>[Signature]</i>	DATE 10-27-00	(2) RELINQUISHED BY SIGNATURE <i>[Signature]</i>	DATE 10-27-00	SAMPLER'S NAME
COMPANY [Signature]	TIME 1:00	COMPANY	TIME	REMARKS
(1) RECEIVED BY SIGNATURE <i>[Signature]</i>	DATE 10-27-00	(2) RECEIVED BY SIGNATURE <i>[Signature]</i>	DATE 10-27-00	
COMPANY [Signature]	TIME	COMPANY [Signature]	TIME	

**FOR LABORATORY USE ONLY**

**Samples received in good condition?**

☐ Yes ☐ No

Custody Seal

☐ Yes ☐ No

## Samples Chilled?

200

Shipping Method-