Golder Associates Ltd.

145 1st Avenue North, Suite 200 Saskatoon, Saskatchewan, Canada S7K 1W6 Telephone (306) 665-7989 Fax (306) 665-3342



January 27, 2003

022-6762

Agrifoods International Cooperative Ltd. 122 Wakooma Street P.O. Box 1267 Saskatoon, Saskatchewan S7K 3P1

Attention:

Mr. Myron Glatt

RE:

CLOSURE REPORT ON UNDERGROUND STORAGE TANK REMOVAL

COPY

445 WINNIPEG STREET REGINA, SASKATCHEWAN

Dear Mr. Glatt:

This letter report provides environmental information related to the removal of four underground storage tanks (USTs) at 445 Winnipeg Street, Regina, Saskatchewan ("the Site", Figure 1). Golder Associates Ltd. (Golder Associates) was retained by Agrifoods International Cooperative Ltd. (Agrifoods) to monitor the removal of the four USTs. Golder Associates retained Petrocare Construction Services Inc. (Petrocare) to carry out the UST removals. The work described in this letter was carried out on behalf of Agrifoods in response to notification by the City of Regina Fire Department in a letter dated April 30, 2002 that the four USTs were to be removed on or before August 15, 2002.

1.0 BACKGROUND

In 2002, on behalf of Agrifoods, Golder Associates reviewed available information regarding unused USTs at 445 Winnipeg Street. The information review indicated that the four USTs were present at the Site. Specifically, the USTs to be removed from the Site consisted of:

- one 23,000-litre (5000-Imperial gallon) diesel UST:
- one 23,000-litre gasoline UST;





022-6762

- one 14,000-litre (3000-Imperial gallon) diesel UST: and.
- one 14,000-litre heating oil UST.

The heating oil UST was formerly located in the northern portion of the Site near the main building. The remaining three USTs and their associated pump island were formerly located together in the southeastern portion of the Site. The locations of the USTs with respect to existing buildings are illustrated in Figure 2.

Application to Saskatchewan Environment (SE) was made in a letter from Golder Associates Ltd. to SE dated July 17, 2002 entitled "Remedial Action Plan for the Removal of Four Underground Storage Ranks at 445 Winnipeg Street, Regina Saskatchewan". Approval to decommission storage facility MA-24, Project # 3789 was subsequently granted by SE on July 18, 2002.

2.0 SITE WORKS

2.1 Excavation, Underground Storage Tank Removal, and Backfilling

Personnel from Golder Associates Ltd. (Golder Associates) were on site throughout the UST removal, soil excavation, and most of the excavation backfilling. Golder Associates conducted the following activities:

- obtained soil samples from the walls and base of the excavation;
- conducted field screening of soil samples for combustible vapours;
- arranged for laboratory testing of soil samples;
- directed the contractor with respect to the extent of the excavation; and,
- documented the activities of the contractor and other personnel on site through the UST removal and soil excavation programs.

The site work involved the removal of gasoline and diesel USTs, the pump island, and heating oil tank and backfilling the excavations. Tank excavations, tank disposal, and backfilling were conducted by Petrocare Construction Services (Petrocare) of Saskatoon, Saskatchewan using a rubber-tired backhoe. The tank excavations commenced on August 13, 2002 and were completed on August 14, 2002.

Prior to removal, each of the three USTs contained approximately 0.1 m of liquid hydrocarbon product. The liquid hydrocarbon product was removed and disposed appropriately from the tanks by CEDA Environmental Services. Once removed, the three USTs located in the southern portion of the Site were inspected and photographed. No serial numbers were visible on the tanks. The tanks appeared to be in good condition and free from any visible holes or perforations. The pump island and all associated piping were also removed.

The final limits of the tank nest excavation were approximately 4-m deep, 14-m wide, and 16-m long. The soil on the excavation side walls and base consisted predominantly of sand fill material. Inspection of the soil on the excavation side walls and base showed grey staining and a strong hydrocarbon odour.

Prior to excavation of the heating oil UST, approximately 1 m of heating oil and 0.2 m of water measured in the tank. The oil/water mixture was removed from the UST and appropriately disposed of by CEDA Environmental Services. Upon excavation and removal the UST was inspected. Perforations were observed at the corners of each end of the UST (Photograph 1 and 2). Additionally, small holes in the bottom of the UST were observed. A concrete pad was noted at the base of the heating oil UST excavation however was not removed.

Soil conditions surrounding the UST consisted of fine sand, with grey-black staining along the west wall of the excavation nearest to the main building.

The tanks were removed from the Site by Petrocare and destroyed. A declaration by Petrocare of the destruction of the USTs is attached.

Following removal of the USTs, and soil sampling each of the excavations, the excavations were backfilled with the any stockpiled soil. The excavated areas remaining were left open pending further assessment of the Site. The excavations were backfilled level with ground surface with clean granular fill materials in December 2002.

2.2 Soil Sampling

Soil samples were obtained during the excavation USTs to assist in determining the magnitude of potential hydrocarbon impacts. Soil samples collected during the removal of the USTs were assessed in the field based on field observations of odours and staining.

One soil sample was collected at the base of each of the excavations subsequent to the removal and stockpiling of overburden soils and the removal of the USTs. The samples were designated 3T (three UST nest excavation) and HO (heating oil UST excavation).

Soil samples were packed tightly into a laboratory-supplied sample jar and stored in cold storage until selected samples were submitted to Enviro-Test Laboratories in Saskatoon, Saskatchewan, for analysis of BTEX, CCME, PHC, Fractions (F₁-F₄) and lead concentrations.

2.3 Soil Sample Results

The principal document for the evaluation of the environmental quality of petroleum hydrocarbon impacted soil and groundwater in Saskatchewan is the Saskatchewan Environment Resource and

Management (SERM) Risk Based Corrective Actions for Petroleum Contaminated Sites, November 1995. The results of the soil chemical analyses should be compared with the SERM criteria for a Commercial/Industrial future land use. Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standard for Petroleum Hydrocarbons (PHC) for soils for a commercial property with coarse grained soils is recommended for total petroleum hydrocarbon concentrations in excess of the SE commercial/industrial criteria.

The soil sample designated 3T, collected from the three UST nest excavation contained F₁ concentrations (2,200 mg/kg) in excess of the CCME Canada Wide Standards for PHC in Soils for COM/IND F₁ (1000 mg/kg). The soil sample from the UST-nest backfill also contained concentrations of benzene (7.6 mg/kg), toluene (45 mg/kg), and xylenes (110 mg/kg) in excess of the SE Risk Based Corrective Actions for Petroleum Contaminated Sites, November 1995 criteria for a commercial/industrial future land use.

The soil sample designated HO, collected from the heating oil tank excavation contained F₂ concentrations (4,000 mg/kg) in excess of CCME guidelines. A summary of the results of chemical analyses for hydrocarbons performed on the collected soil samples is provided in Table 1.

TPH = 1000 ppm

3.0 SUMMARY

The four USTs and associated piping indicated in the April 30, 2002 letter from the City of Regina Fire Department have been removed from the Site. The USTs were destroyed by Petrocare.

The chemical analyses of the soil samples collected from the base of the three UST nest excavation and from the base of the heating oil UST excavation indicate concentrations in excess of applicable guideline criteria. (No potentially impacted soil was removed from the Site.) The excavations were backfilled with clean fill.



Additional environmental investigations at the Site are on-going.

LIMITATIONS AND USE OF REPORT 4.0

This closure report was prepared for the exclusive use of Agrifoods International Cooperative Ltd. The report is based on data and information collected during the UST removals and soil excavations at 445 Winnipeg Street on August 13 and 14, 2002. The findings, interpretations, and conclusions concerning the Site are based solely on the Site conditions observed while at the Site. The data presented in this report represent the soil conditions at the sampling locations tested. Soil conditions may vary with location, depth, sampling methodology, analytical techniques, and other factors.

Golder Associates Ltd. makes no warranty, expressed or implied, and assumes no liability with respect to the use of the information contained in this report at the subject Sites, or at any other Site, for other than its intended purpose.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Golder Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

If new information is discovered in the future during Site excavations, building demolition or other activities, or if additional subsurface investigations or testing are conducted by others, Golder Associates Ltd. should be requested to re-evaluate the conclusions of this report and to provide amendments as required prior to any reliance upon the information presented herein.

5.0 CLOSURE

We trust this letter report provides the information you require. If you have any further questions, please do not hesitate to contact the undersigned.

Yours truly,

GOLDER ASSOCIATES LTD.

Kevin Beechinor, B.Sc. Environmental Specialist

Greg Misfeldt, M.Sc., P.Eng. Senior Geotechnical Engineer

SRS/KB/GM/bh

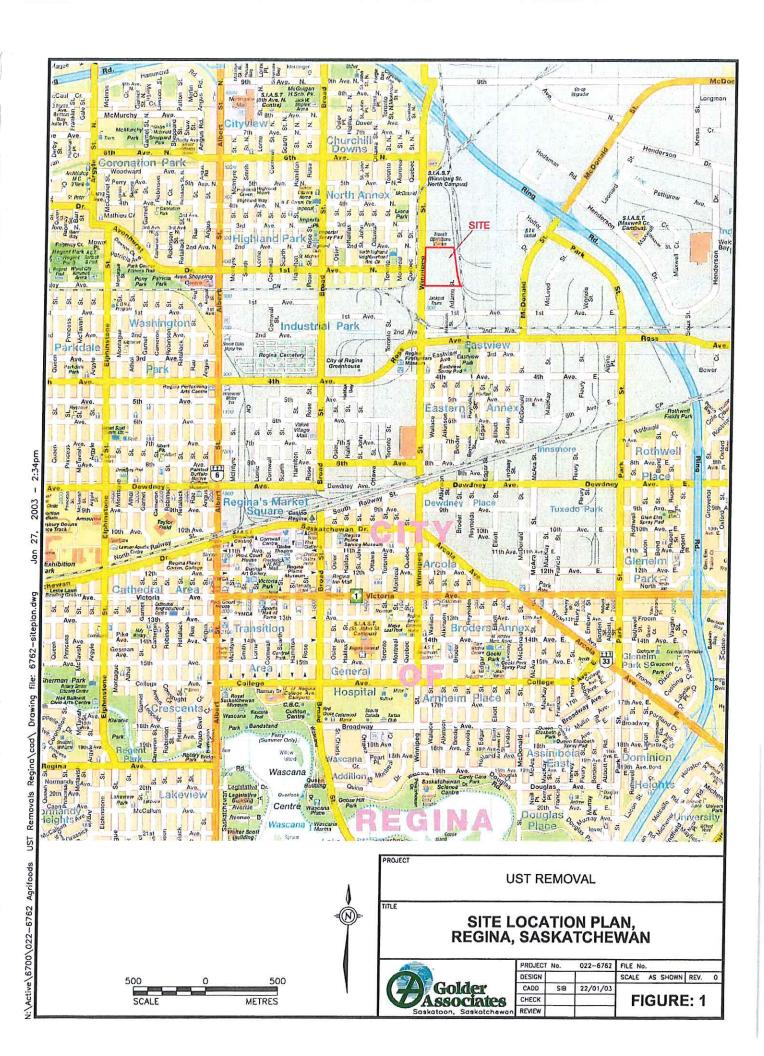
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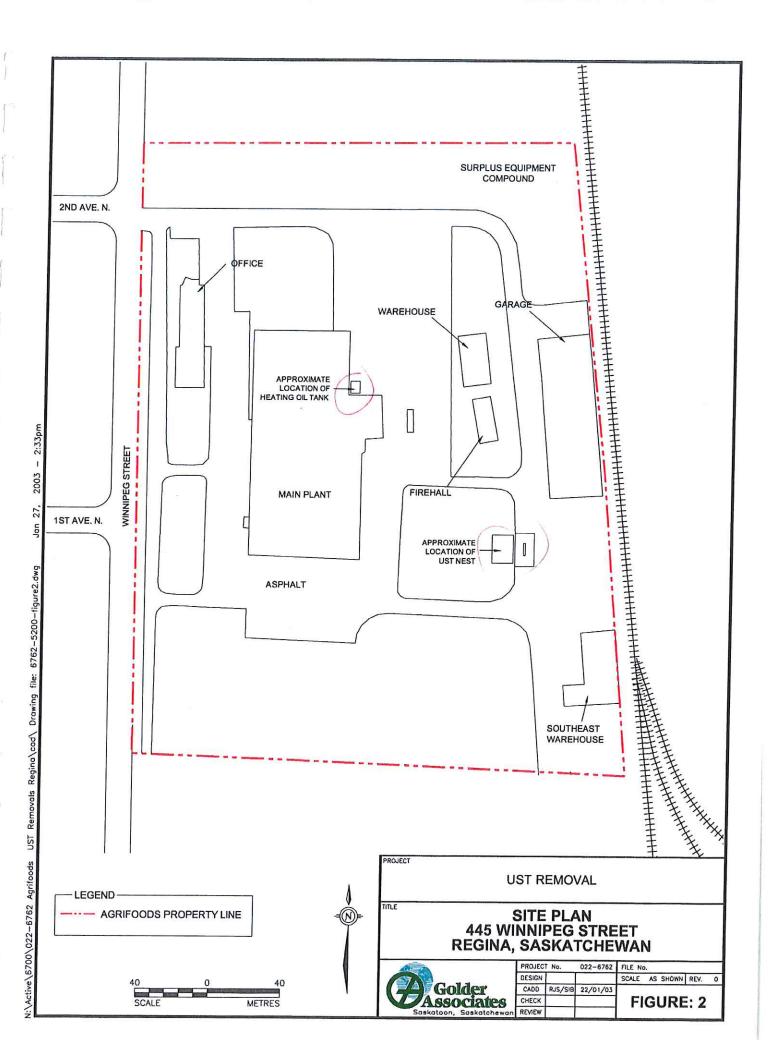
cc:

Kim Wunderlich, Environment Officer, Saskatchewan Environment, Grasslands Region Ron Mathieson, Fire Department, City of Regina Gary Nieminen, Municipal Engineering Department, City of Regina

Attachments

FIGURES





APPENDIX I ANALYTICAL RESULTS



a Division of BP Petroleum Services LTD

Facs	simile Cover Sheet
Date: JAN. 24. 2003	
Name: KEVIN Beechinar	_
Company: Golder Associates	·
Fax: () 665 - 3342	
Subject: <u>attacha</u>	
·	
	·
/e are sending page(s) including this cover page	From DALOY Canaball

Petrocare Construction
1202 Avenue X South Saskatoon, Saskatchewan. Canada, S7M 3H9 Phone (306) 931-2344 Fax (306) 668-7655

E-mail us petrocare@sasktel.net or darcycampbell@sasktel.net
Or Visit us at www.petrocare.ca

PETROCARE CONSTRUCTION SERVICES

1202 Avenue X South Saskatoon, Saskatchewan S7M 3H9 Phone: (306) 931-2344 Fax: (306) 668-7655

STATUTORY DECLARATION

In the matter of a contract entered into between Goldar Associates Innovative Applications Inc., party of the first part and Petrocare Construction Services, party of the second part, to perform work for the Destruction of 2-5,000 gallon and 1-3,000 gallon underground Tanks from the former Dairyworld Site at 455 Winnipeg Street, Regina, Saskatchewan.

TO WIT: I, Darcy R. Campbell, of the City of Saskatoon, in the Province of Saskatchewan do solemnly declare:

- 1. That I am President of Petrocare Construction Services, the party of the second part.
- 2. That I have personal knowledge of the facts herein declared.
- 3. That the tanks listed above have been made unfit for reuse as per instructions, and have been destroyed.

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the City of Saskatoon, in the Province of Saskatchewan this 24th. Day of

January 2003

(Datcy R. Campbell)

Frances C. Yesnik

A Commissioner for Oaths, in and for

The Province of Saskatchewan

My commission expires March 31, 2006

Edmonton (Main) 9936 - 67 Avenue monton, AB T6E 0P5 one: (780) 413-5227 (780) 437-2311

77.

monton (Downtown) iustrial Hygiene and Fir., 10158 - 103 Street Edmonton, AB T5J 0X6 Phone: (780) 413-5265 (780) 424-4602

Calgary / 2, 1313 - 44 Ave. N.E. .'gary, AB T2E 6L5 one: (403) 291-9897 (403) 291-0298

ınde Prairie J5 - 111 Street Grande Prairie, AB T8V 5W1 Phone: (780) 539-5196 C (780) 513-2191

Saskaloon 124 Veterinary Road skatoon, SK S7N 5E3

one: (306) 668-8370 x: (306) 668-8383 1-800-667-7645

nnipeg 745 Logan Avenue Winnipeg, MB R3E 3L5

(204) 945-3705 (204) 945-0763

Thunder Bay 31 Barton Street inder Bay, ON P7B 5N3 mone: (807) 623-6463 (807) 623-7598 Zax:

awa (enos Laboratories Inc. ?10 Colonnade Road 1#13 pean, ON K2E 7L5 one: (613) 731-1005 (613) 736-1107

terioo 3athurst Drive Init #1 Vaterloo, ON N2V 2C5 one: (519) 886-6910 (519) 886-9047

woming West First Street per, Wyoming 82601 none: (307) 235-5741 1x: (307) 266-1676 100-666-0306

> Wide Phone: √68-9878 √68-9878

istern Canada Fax: 800-286-7319

ETL Enviro-Test

A DIVISION OF ETL CHEMSPEC ANALYTICAL LIMITED

CHEMICAL ANALYSIS REPORT

GOLDER ASSOCIATES LTD ATTN: KEVIN BEECHNOR 200, 145 1st AVE N SASKATOON SK S7K 1W6

RECEIVED

AUG 23 2002

GOLDER ASSOCIATES SASKATOON

Lab Work Order #:

L76745 いんみ

Sampled By:

Date Received: 16-AUG-02

Project P.O. #:

Project Reference: 022-6772

Comments:

GAVIN PLOSZ

APPROVED BY

Project Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY. ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

LABORATORY ACCREDITATIONS:

- LABORATORY ACCREDITATIONS:

 STANDARDS COUNCIL OF CANADA IN COOPERATION WITH THE CANADIAN ASSOCIATION FOR ENVIRONMENTAL ANALYTICAL LABORATORIES (CAEAL)
 FOR SPECIFIC TESTS AS REGISTERED BY THE COUNCIL (EDMONTON, CALGARY, GRANDE PRAIRIE, SASKATOON, WINNIPEG, THUNDER BAY, WATERLOO)
 AMERICAN INDUSTRIAL HYGIENE ASSOCIATION (AIHA)IN THE INDUSTRIAL HYGIENE PROGRAM (EDMONTON, WINNIPEG)
 STANDARDS COUNCIL OF CANADA IN COOPERATION WITH THE CANADIAN FOOD INSPECTION AGENCY (CFIA)FOR FERTILIZER AND FEED TESTING
- (SASKATOON) AND FOR MICROBIOLOGICAL TESTING IN FOOD (WINNIPEG) LABORATORY RECOGNITIONS:
- · STANDARDS COUNCIL OF CANADA · GLP COMPLIANT FACILITY (EDMONTON, OTTAWA)

ENVIRO-TEST CHEMICAL ANALYSIS REPORT

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Benzene 0.12 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 Toluene 6.2 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 Ethylbenzene 7.3 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 Xylenes 29 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 % Moisture 14 0.1 % 18-AUG-02 19-AUG-02 GSP R8907		-		į	1	18-AUG-02	18-AUG-02	GSP	R8913
Toluene Ethylbenzene Xylenes Toluene 6.2 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 18-AUG-02 19-AUG-02 GSP R8912	1	0.40	ا ب ا	0.04					
Ethylbenzene 7.3 50 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 Xylenes 29 50 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 % Moisture 14 0.1 % 18-AUG-02 19-AUG-02 GSP R8907			i	1					R8912
Xylenes 29 50 0.01 mg/kg 18-AUG-02 19-AUG-02 GSP R8912 % Moisture 14 0.1 % 18-AUG-02 19-AUG-02 GSP R89074	· · · · · · · · · · · · · · · · · · ·							GSP	R8912
% Moisture 14 0.1 % 18-AUG-02 19-AUG-02 GSP R8907								GSP	R8912
0.1 % 16-AUG-02 19-AUG-02 GSP R8907	Aylones	29	30 L	0.01				GSP	R89125
0.1 % 16-AUG-02 19-AUG-02 GSP R8907	% Mojeturo			1				1	
	76 INICIDIUSE	14		0.1	%	18-AUG-02	19-AUG-02	GSP	R89075
	Refer to Referenced Information for Qualifiers	(if anv) and	Methodology	1	1		!		
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Reference Information

V	leth	ods	Lis	ted	(if	app	lical	ole)	:
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ETL Test Code Matrix **Test Description** Preparation Method Reference** Analytical Method Reference** ETL-BTX,TVH-CCME-SK Soil BTEX CCME CWS-PHC Dec-2000 - Pub# ETL-TEH-CCME-SK CCME Total Extractable CCME CWS-PHC Dec-2000 - Pub# Hydrocarbons 1310 PREP-MOISTURE-SK Soil % Moisture Oven dry 105C-Gravimetric

> ** Analytical Methods employed follow in-house standard operations procedures, which are generally based on US-EPA, ASTM, NIOSH and/or APHA methods.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code

Laboratory Location

Laboratory Definition Code

Laboratory Location

SK

Enviro-Test Laboratories - Saskatoon,

Saskatchewan, Canada

Please note that there has been detection limit changes on some of the parameters for the following products as of 1 December 2001. The following soil metal packages:

METAL-ED, METAL-EXD-ED, METAL-CCME-ED, METAL-G50-ED, METAL-PITS-BC-ED, METAL-SK-GL99-ED, METAL-OILYWST-ED and METAL-REFINEDOIL-ED, METAL-LOW-ED and METAL-LOW-EXD-ED The following water metal package:

MET-TOT-LOW-ED

Test results reported relate only to the samples as received by the laboratory. Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results Client ID:

3 tr

Enviro Test

Sample ID:

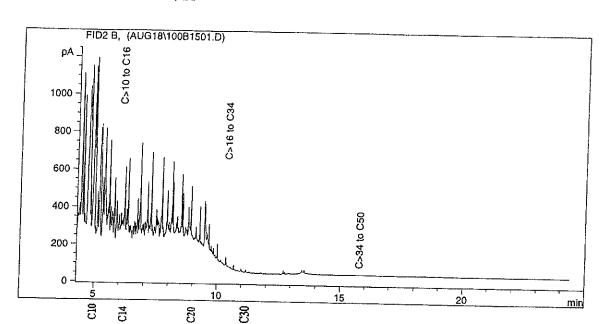
L76745-1

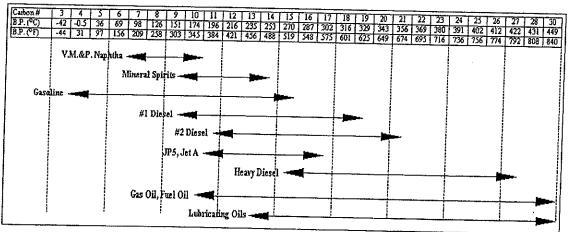
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8/19/02 11:10:11 AM 8/19/02 11:10:11 AM

Instrument ID:
Operator:

GC1 GP/IG





Boiling Point Distribution Range for Petroleum Based Fuel Products

Adapted from: Drews, A.W., ED; Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadephia, PA, 1989: p XVIII

Client ID:

Sample ID:

L76745-2

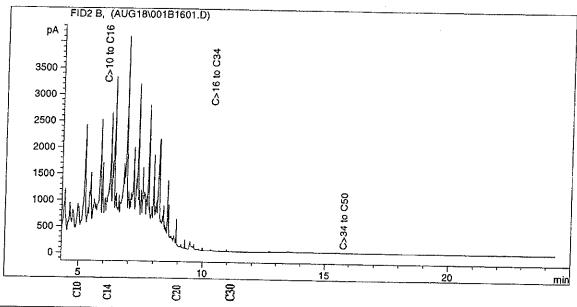
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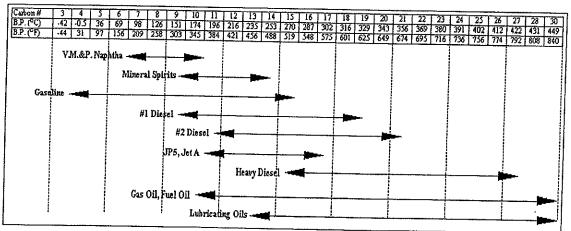
8/19/02 11:51:31 AM 8/19/02 11:51:31 AM

Instrument ID:

Operator:

GP/IG





Boiling Point Distribution Range for Petroleum Based Fuel Products

Adapted from: Drews, A.W., ED; Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadephia, PA, 1989: p XVIII