



UIN 062681D

Transmission

Unit No. 1703

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4F5HDC33541

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 10.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	08-Jan-25	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23
DATE RECEIVED	20-Jan-25	12-Sep-24	15-May-24	17-Jan-24	29-Aug-23	23-May-23
DATE REPORTED	21-Jan-25	13-Sep-24	16-May-24	22-Jan-24	30-Aug-23	26-May-23
LAB NO.	44023551018	44023441473	44023335661	44023229566	44023107502	44023023684
SIF NO.	704538904	704538877	702897567	702897524	701689902	701689962
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	6.0		6.0	8.0	
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	13	20	22	20	21	19
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	3	4	4	4	4
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	8	10	8	11	11
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	6	5	6	4	3
Sodium (Na)	<1	<1	<1	<1	<1	<1
Potassium (K)	<1	<1	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	2	2	3	7	4	3
Calcium (Ca)	116	121	123	121	131	130
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	189	194	193	180	197	187
Zinc (Zn)	3	4	5	8	6	3
Molybdenum (Mo)	<1	<1	1	<1	1	<1
Boron (B)	68	66	70	73	67	66
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.7	6.0	5.8	5.9
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	13	14	<10	10	<10	11



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 062681D

U.S. Laboratories

Atlanta, Georgia - 420
 5300 Oakbrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

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 5036 South Service Rd.
 Burlington, ON L7L5Y7
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 Edmonton, AB T6N 1M9
 +1 (780) 483-1036

Sales & Marketing

Houston, Texas
 10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

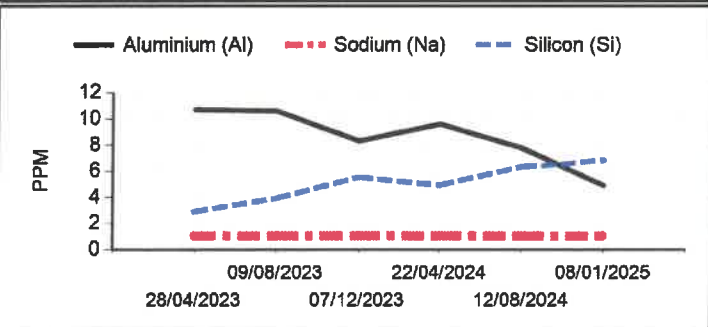
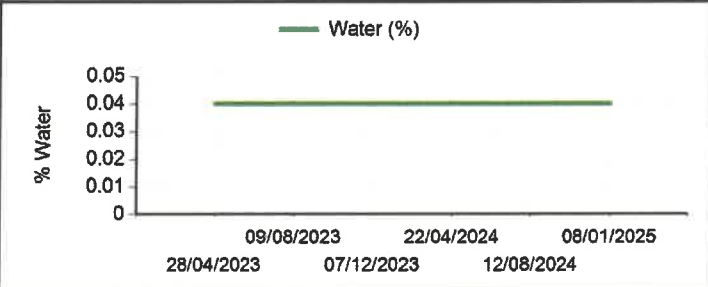
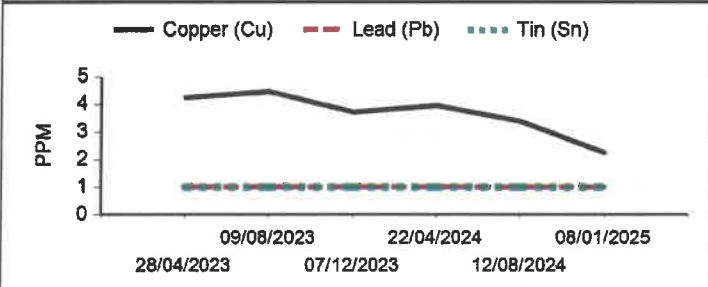
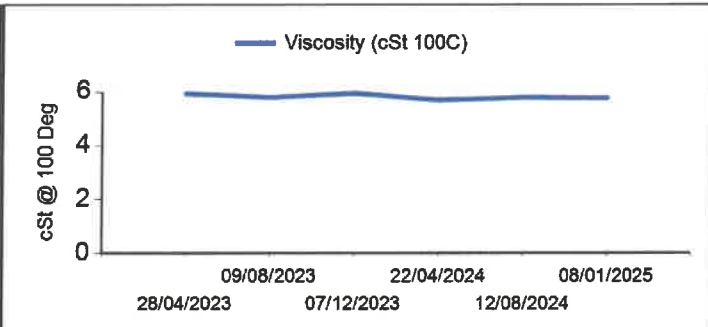
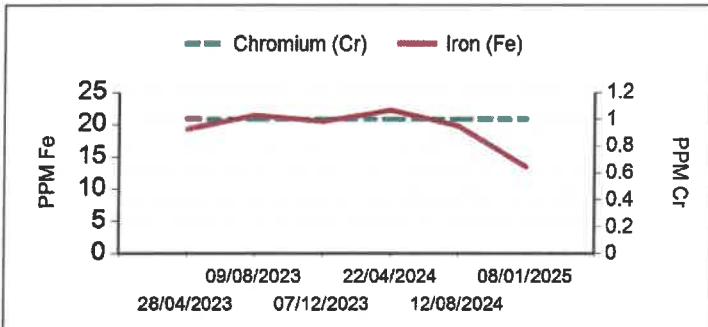
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 062681C

Gasoline Engine

Unit No. 1703

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4F5HDC33541

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

	08-Jan-25	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23
DATE SAMPLED	08-Jan-25	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23
DATE RECEIVED	20-Jan-25	12-Sep-24	15-May-24	17-Jan-24	29-Aug-23	23-May-23
DATE REPORTED	21-Jan-25	13-Sep-24	16-May-24	19-Jan-24	30-Aug-23	26-May-23
LAB NO.	44023551017	44023441472	44023335660	44023229562	44023107501	44023023685
SIF NO.	704538905	704538876	702897568	702897523	701689903	701689963
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	18	28	10	11	20	11
Chromium (Cr)	<1	1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	5	<1	3	9	1
Nickel (Ni)	<1	4	2	1	1	1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	17	11	14	19	10
Sodium (Na)	9	19	8	2	7	<1
Potassium (K)	2	4	<1	1	2	<1
Additives (ppm)						
Magnesium (Mg)	484	573	549	526	620	500
Calcium (Ca)	1229	1537	1402	1316	1589	1350
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	671	811	753	681	784	689
Zinc (Zn)	787	1015	872	816	1018	851
Molybdenum (Mo)	278	348	291	292	339	295
Boron (B)	21	12	23	23	17	32
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	9.4	12.2	10.8	10.3	13.1	10.3
PQ Index	<10	<10	<10	<10	<10	10

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UIN 062681C

U.S. Laboratories

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International Locations

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Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

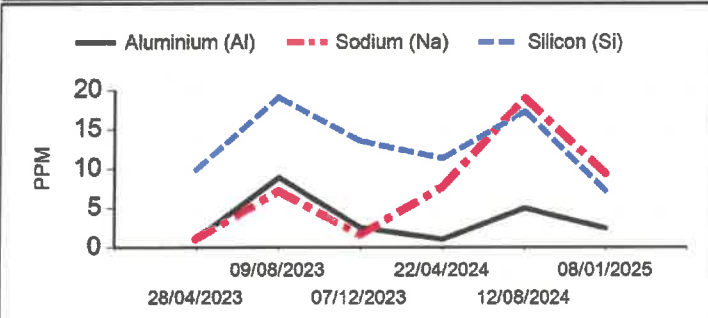
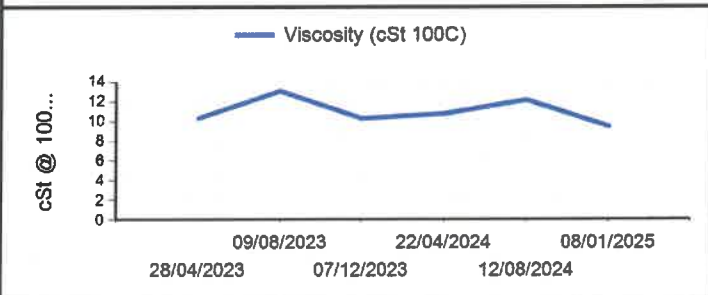
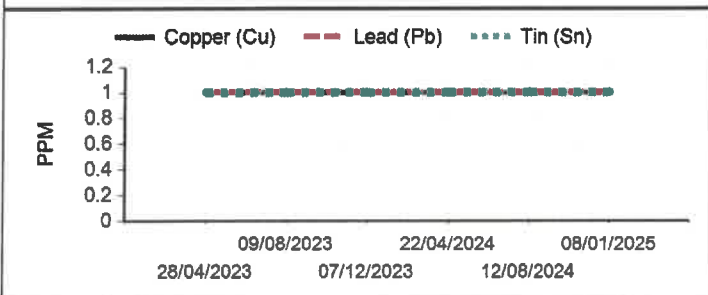
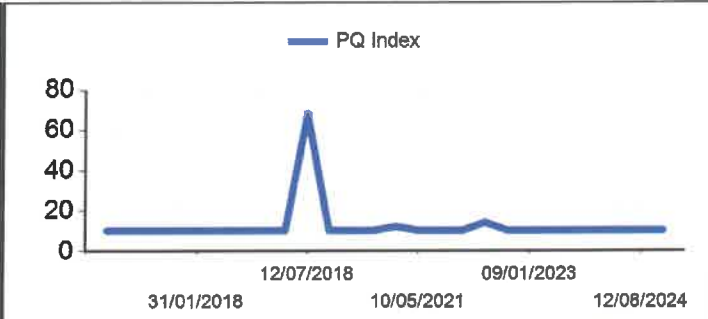
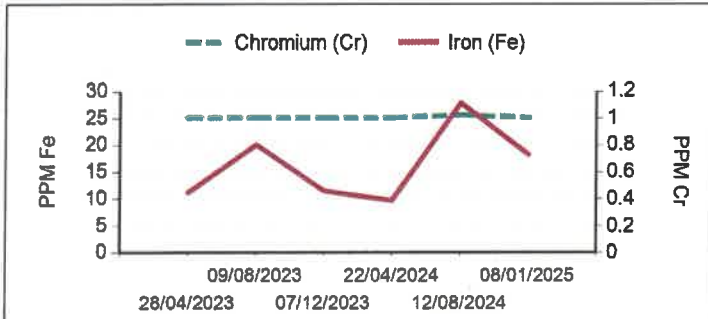
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 037EDBC

Transmission

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

	07-Jan-25	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19
DATE SAMPLED	07-Jan-25	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19
DATE RECEIVED	20-Jan-25	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19
DATE REPORTED	21-Jan-25	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	01-Aug-19
LAB NO.	44023551022	44023403755	44023318076	44022978409	44022189833	44022068760
SIF NO.	704538902	702897500	702897572	701689926	34144404	35084630
TIME ON UNIT					26000	20000
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt 6.0	7.0		6.0	6.0	6.0
FILTER	mi Not Applicable					
OIL CHANGED	mi Changed	Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	26	23	12	27	40	36
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	23	17	4	19	35	25
Tin (Sn)	2	1	1	3	5	2
Aluminium (Al)	8	6	4	13	23	18
Nickel (Ni)	3	2	<1	<1	<1	1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	14	10	4	4	3
Sodium (Na)	4	6	6	<1	2	5
Potassium (K)	3	4	4	<1	2	<1
Additives (ppm)						
Magnesium (Mg)	<1	<1	<1	3	2	2
Calcium (Ca)	113	119	108	130	122	120
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	186	186	187	191	190	177
Zinc (Zn)	4	4	3	6	5	5
Molybdenum (Mo)	<1	<1	<1	2	<1	<1
Boron (B)	66	78	89	71	57	56
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.8	5.8	5.9	7.0	5.7
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	18	15	18	11	10	131



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 037EDBC

U.S. Laboratories

- Atlanta, Georgia - 420**
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669
- Valley View, Ohio - 410**
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400
- Kansas City, Kansas - 430**
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Kansas City, KS 66115
800.332.8055
- Phoenix, Arizona - 440**
3319 West Earll Drive
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800.445.7930
- Portland, Oregon - 401**
4943 NW Front Avenue
Portland, OR 97210
800.770.4128

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- Burlington, Ontario - 450**
5036 South Service Rd.
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905 332 9559
- Edmonton, Alberta - 402**
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing

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10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

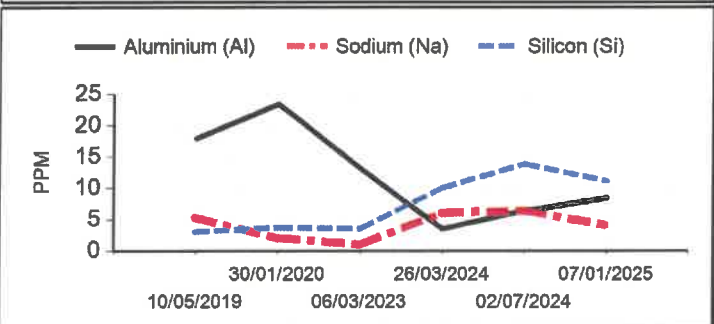
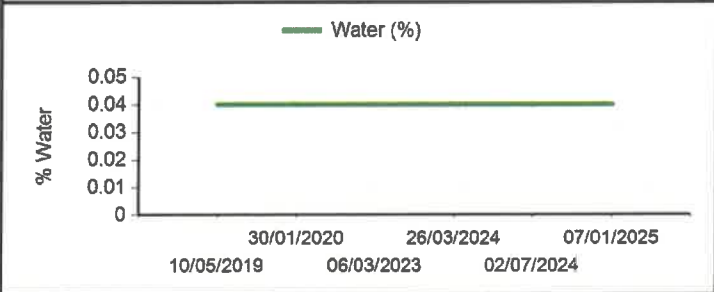
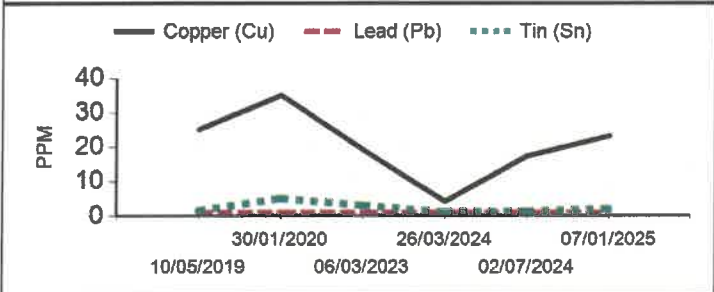
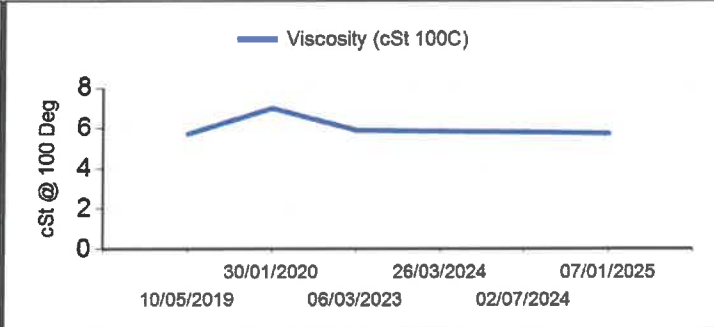
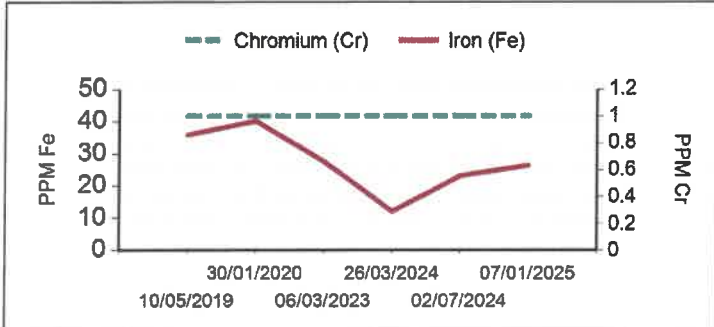
International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 03521F8

Gasoline Engine

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Gasoline Engine

Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity high for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor. Please confirm grade of oil used in this component.

ANALYST: roldan.beldad

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	07-Jan-25	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19
DATE RECEIVED	20-Jan-25	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19
DATE REPORTED	21-Jan-25	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	31-Jul-19

LAB NO.	44023551021	44023403756	44023318110	44022978408	44022189832	44022068748
SIF NO.	704538903	702897499	702897571	701689927	34144406	35084634
TIME ON UNIT					6000	6000
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	7.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	13	11	24	9	11	9
Chromium (Cr)	<1	<1	1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	<1	1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	1	<1
Aluminium (Al)	3	3	6	2	4	4
Nickel (Ni)	1	<1	1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	9	11	14	13	14	12
Sodium (Na)	7	5	4	<1	4	4
Potassium (K)	2	<1	2	<1	2	2

Additives (ppm)						
Magnesium (Mg)	501	538	486	545	542	503
Calcium (Ca)	1344	1401	1405	1463	1255	1191
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	713	683	678	731	771	647
Zinc (Zn)	857	861	856	861	881	773
Molybdenum (Mo)	287	290	290	312	192	163
Boron (B)	10	20	19	60	47	21

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.4	10.6	9.8	8.2	8.4	9.4
PQ Index	10	<10	12	<10	<10	<10

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UIN 03521F8

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 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

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 800.445.7930

Portland, Oregon - 401

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 800.770.4128

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 +1 (780) 483-1036

Sales & Marketing

Houston, Texas

10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

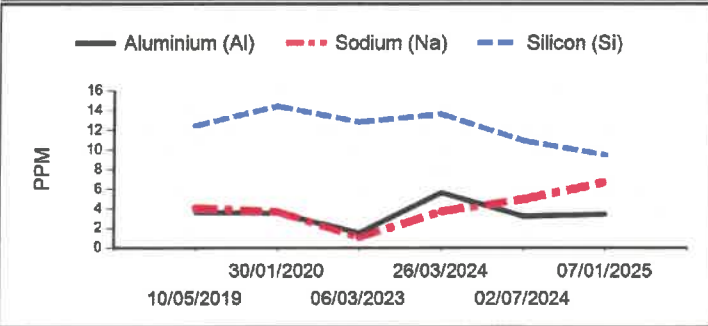
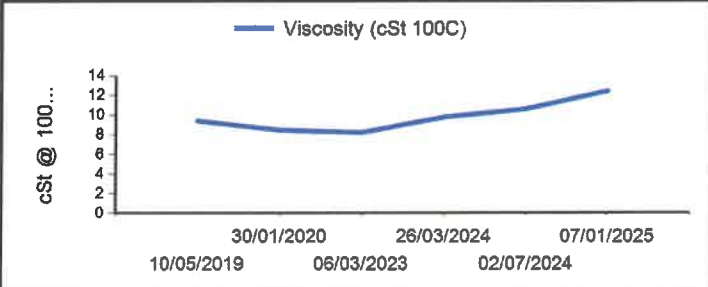
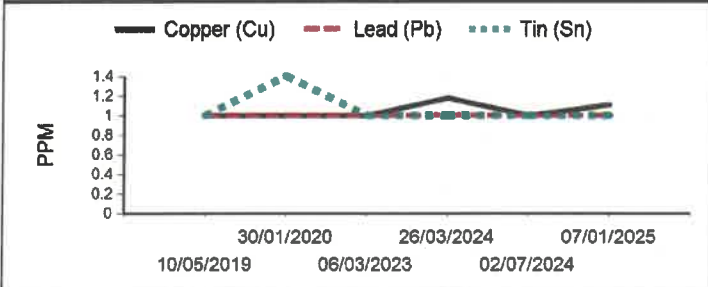
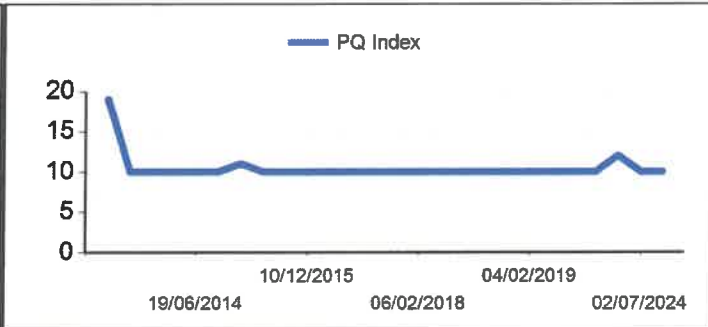
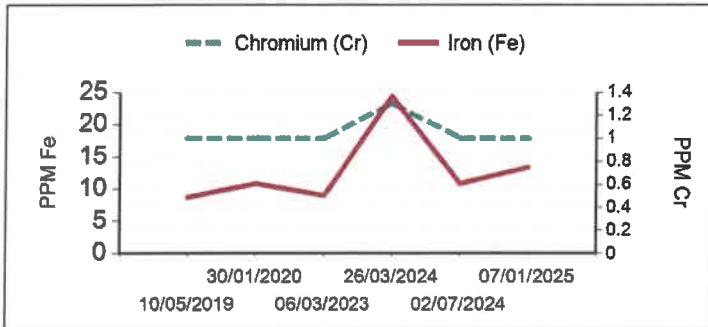
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 09C4E6A

Gasoline Engine

Unit No. 2203

Unit:
Make Ford
Model E-450
Serial No. 1FDFE45XGDC13192

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Sodium level (possible oil additive/coolant chemical) high. Other contaminant levels acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, advise monitor coolant top-up rate as a precaution. Resample at a reduced service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	03-Jan-25	23-Aug-24	29-Jan-24	27-Sep-23	11-May-23	29-Dec-22
DATE RECEIVED	20-Jan-25	12-Sep-24	13-Feb-24	20-Oct-23	23-May-23	19-Jan-23
DATE REPORTED	21-Jan-25	13-Sep-24	14-Feb-24	23-Oct-23	26-May-23	20-Jan-23

LAB NO.	44023551019	44023441476	44023253086	44023153284	44023023686	44022918308
SIF NO.	704538897	702897493	702897516	701689931	701689965	700592870
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	6.0	6.0	6.0	6.0		6.0
FILTER						
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	19	19	23	21	23	6
Chromium (Cr)	<1	<1	1	1	2	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	1	2	2	2
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	5	6	3	2
Nickel (Ni)	<1	<1	1	1	1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	2	79
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	14	13	16	21	13	9
Sodium (Na)	620	395	194	6	29	2
Potassium (K)	29	13	4	2	<1	1

Additives (ppm)						
Magnesium (Mg)	489	517	588	604	534	484
Calcium (Ca)	1316	1357	1467	1595	1446	1279
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	698	709	769	832	705	645
Zinc (Zn)	848	892	967	1018	900	750
Molybdenum (Mo)	295	333	325	348	297	14
Boron (B)	46	33	26	16	17	142

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	Yes	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	10.1	10.6	11.3	12.8	11.3	8.8
PQ Index	13	15	12	<10	<10	<10



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Portland, Oregon - 401 4943 NW Front Avenue Portland, OR 97210 800.770.4128	

Canadian Laboratories

Burlington, Ontario - 450 5036 South Service Rd. Burlington, ON L7L5Y7 905 332 9559	Edmonton, Alberta - 402 9450 17 Ave NW Edmonton, AB T6N 1M9 +1 (780) 483-1036
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877.835.8437

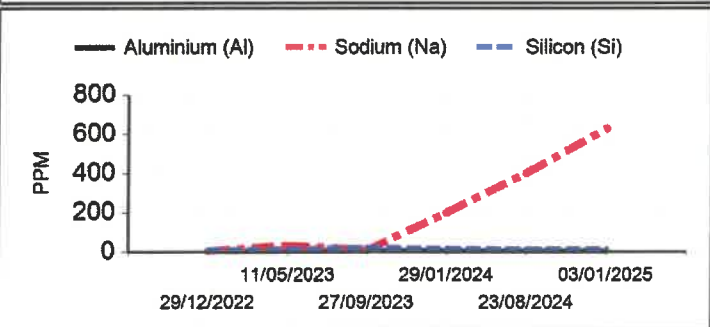
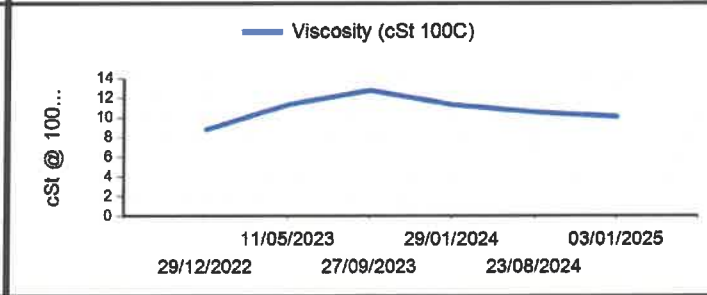
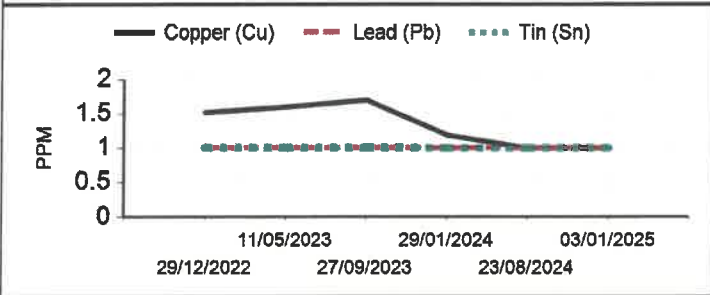
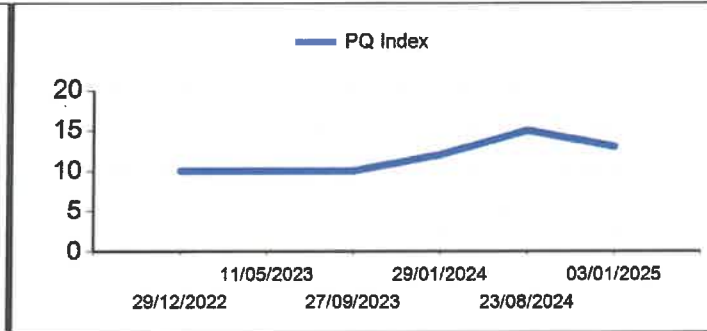
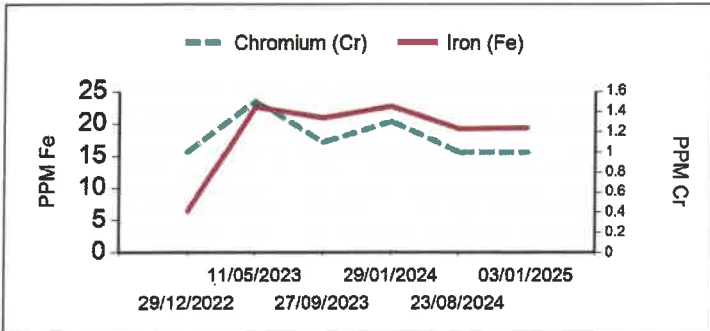
International Locations

Australia Brisbane, Perth, Sydney, Muswellbrook	South America Santiago de Chile, Belo Horizonte, Brazil	New Zealand Wellington	Southeast Asia Kuala Lumpur, Singapore	Europe Prague
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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 09C4E6B

Transmission

Unit No. 2203

Unit:
Make Ford
Model E-450
Serial No. 1FD4E45XGDC13192

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	03-Jan-25	23-Aug-24	29-Jan-24	27-Sep-23	11-May-23	29-Dec-22
DATE RECEIVED	20-Jan-25	12-Sep-24	13-Feb-24	20-Oct-23	23-May-23	19-Jan-23
DATE REPORTED	21-Jan-25	13-Sep-24	14-Feb-24	23-Oct-23	26-May-23	20-Jan-23
LAB NO.	44023551020	44023441477	44023253087	44023153283	44023023687	44022918309
SIF NO.	704538896	702897494	702897515	701689930	701689964	700592869
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	Unidentified
OIL GRADE	ATF	ATF	ATF	ATF	ATF	Unknown
OIL ADDED	6.0			6.0		6.0
FILTER						
OIL CHANGED	Changed	Not Changed	Not Changed	Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	13	13	24	27	23	23
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	3	3	7	10	10	12
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	4	8	8	6	6
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	5	6	4	4	6
Sodium (Na)	1	2	5	<1	3	7
Potassium (K)	<1	<1	<1	3	1	3
Additives (ppm)						
Magnesium (Mg)	<1	1	7	4	5	3
Calcium (Ca)	136	142	168	180	202	231
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	226	231	310	374	401	532
Zinc (Zn)	3	4	16	12	13	9
Molybdenum (Mo)	<1	<1	4	<1	2	1
Boron (B)	84	81	119	150	171	255
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.9	5.8	5.9	6.0	5.8	5.5
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	12	12	10	11	<10	<10



ANALYST: Sam Smith Phoenix

Normal

Severe

Abnormal

Caution

Normal

LEGEND

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UIN 09C4E6B

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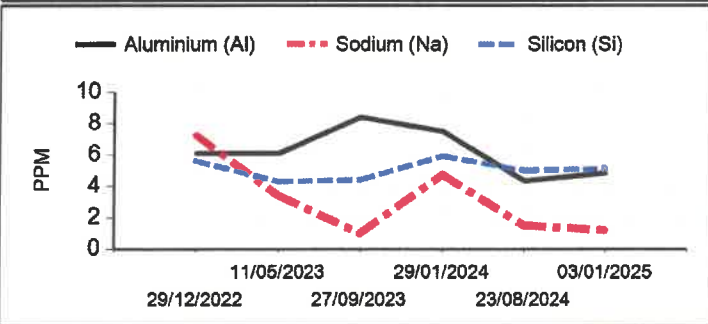
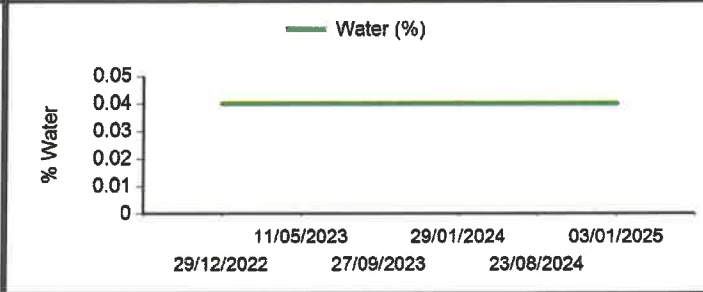
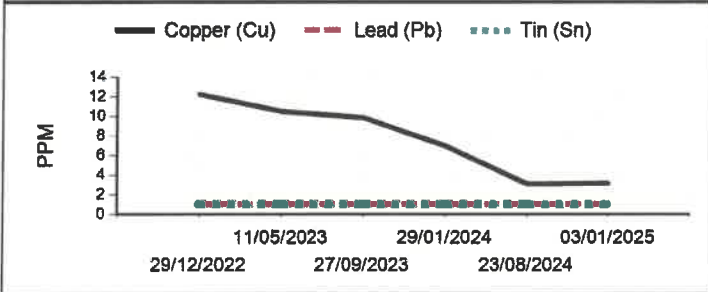
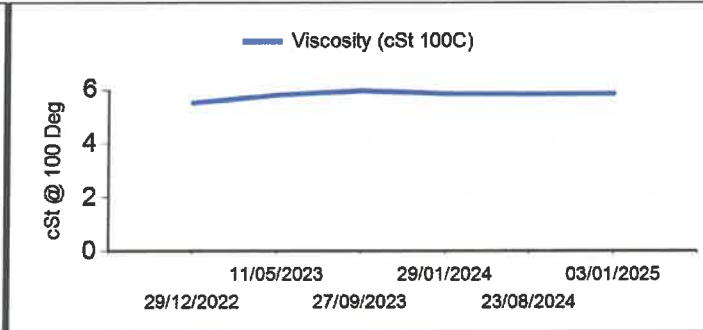
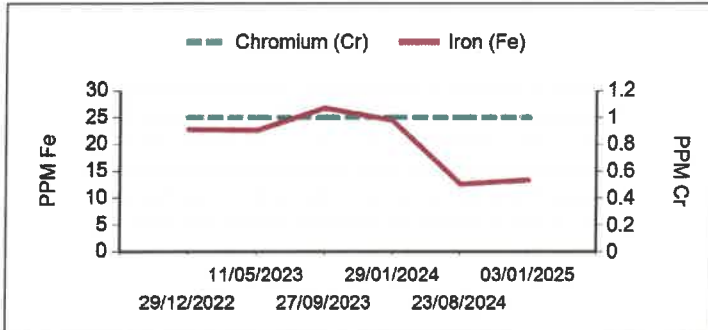
International Locations

- Australia**
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- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046EA

Transmission

Unit No. 1904

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM6KKB48491

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Unit/oil times unknown. Torque converter/pump wear indicated. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: As oil already changed, resample at a reduced service interval to further monitor.

DATE SAMPLED	18-Dec-24	16-Jul-24	19-Jan-24	07-Sep-23	26-May-23	07-Feb-23
DATE RECEIVED	20-Jan-25	31-Jul-24	13-Feb-24	20-Sep-23	23-Jun-23	14-Feb-23
DATE REPORTED	21-Jan-25	02-Aug-24	14-Feb-24	25-Sep-23	27-Jun-23	16-Feb-23
LAB NO.	44023551025	44023403752	44023253079	44023128162	43021792846	44022938288
SIF NO.	704538898	702897502	702897513	701689912	701689898	700592844
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	ATF	ATF
OIL GRADE	Unknown	Unknown	Unknown	Unknown	ATF	ATF
OIL ADDED	qt	3.0	3.0	3.0		3.0
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	93	79	90	70	75	51
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	12	10	11	10	12	9
Tin (Sn)	3	2	2	2	2	1
Aluminium (Al)	61	56	57	45	41	25
Nickel (Ni)	3	3	3	3	3	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	10	11	10	8	5
Sodium (Na)	2	2	3	2	4	1
Potassium (K)	<1	<1	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	1	2	6	3	9	2
Calcium (Ca)	115	133	137	133	157	134
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	181	182	198	196	183	190
Zinc (Zn)	5	9	13	6	20	5
Molybdenum (Mo)	2	2	5	2	7	3
Boron (B)	59	59	61	62	64	66
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.8	5.9	5.8	5.8	5.9
Solids (%)	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Additional						
PQ Index	24	16	17	13	12	<10



ANALYST: roldan.beldad

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

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Kuala Lumpur, Singapore

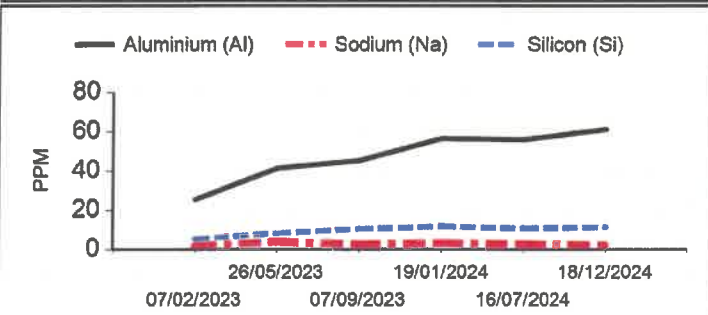
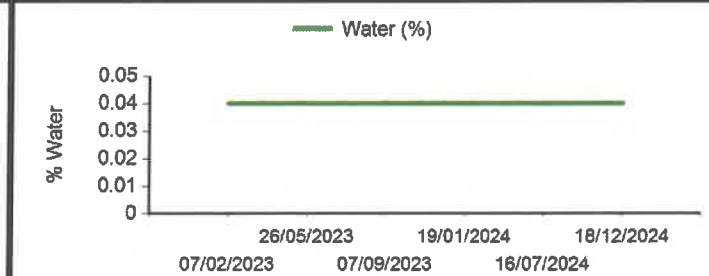
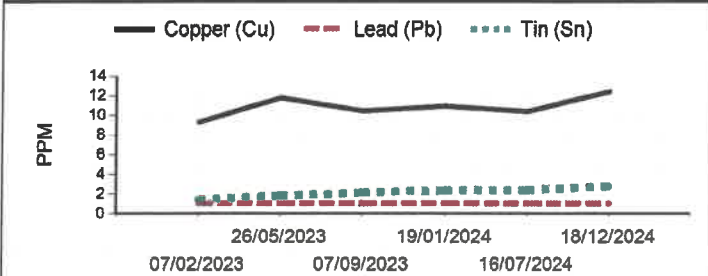
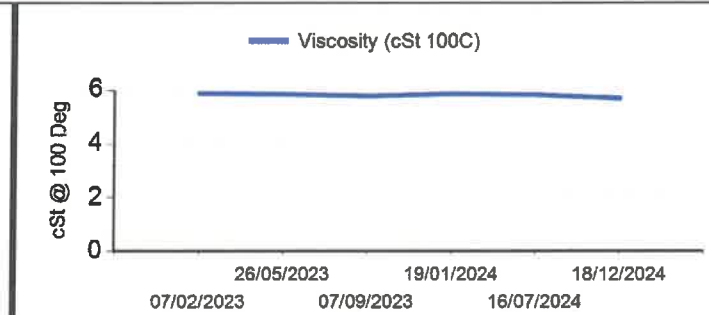
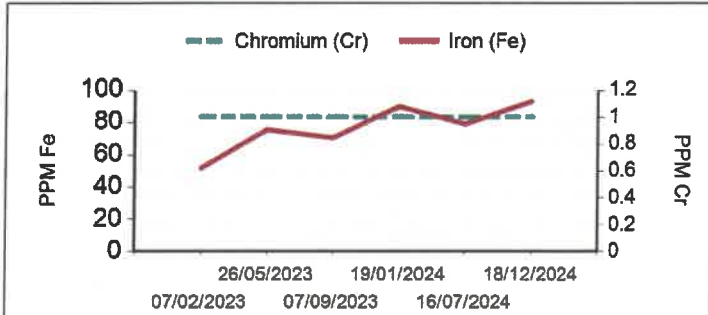
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046DF

Gasoline Engine

Unit No. 1904

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM6KKB48491

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	18-Dec-24	16-Jul-24	19-Jan-24	07-Sep-23	26-May-23	07-Feb-23
DATE RECEIVED	20-Jan-25	31-Jul-24	13-Feb-24	20-Sep-23	23-Jun-23	14-Feb-23
DATE REPORTED	21-Jan-25	02-Aug-24	14-Feb-24	25-Sep-23	24-Jun-23	16-Feb-23

LAB NO.	44023551024	44023403757	44023253078	44023128161	43021792845	44022938287
SIF NO.	704538899	702897501	702897514	701689913	701689899	700592843
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	15	22	125	16	25	11
Chromium (Cr)	<1	<1	3	<1	<1	<1
Lead (Pb)	<1	1	<1	<1	<1	<1
Copper (Cu)	6	48	7	2	2	1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	7	71	4	5	1
Nickel (Ni)	<1	<1	1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	25	146	46	23	17	11
Sodium (Na)	19	20	8	5	9	<1
Potassium (K)	4	18	2	1	<1	<1

Additives (ppm)						
Magnesium (Mg)	521	404	600	579	579	502
Calcium (Ca)	1390	1303	1627	1706	1706	1346
Barium (Ba)	<1	18	10	<1	<1	<1
Phosphorus (P)	730	691	821	825	772	724
Zinc (Zn)	896	821	1051	1040	990	889
Molybdenum (Mo)	300	137	335	335	346	196
Boron (B)	15	63	23	29	24	46

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.1	8.0	9.9	8.8	9.0	8.4
PQ Index	10	<10	<10	<10	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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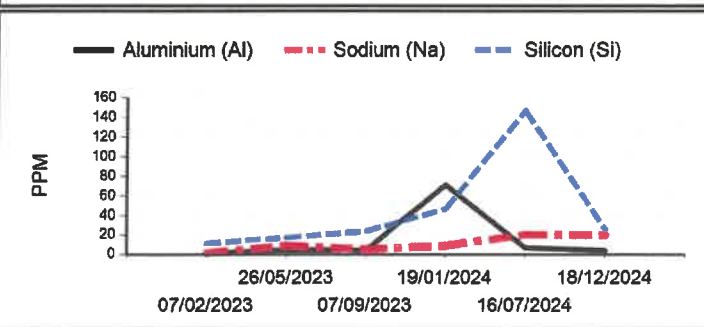
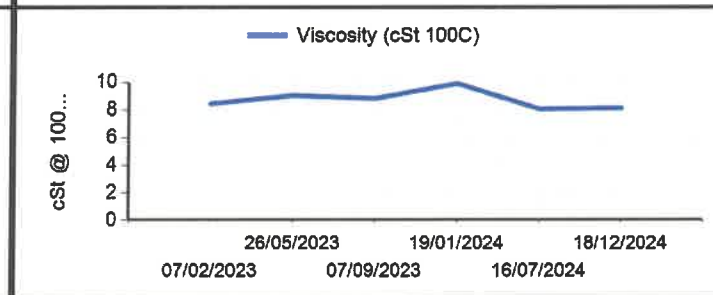
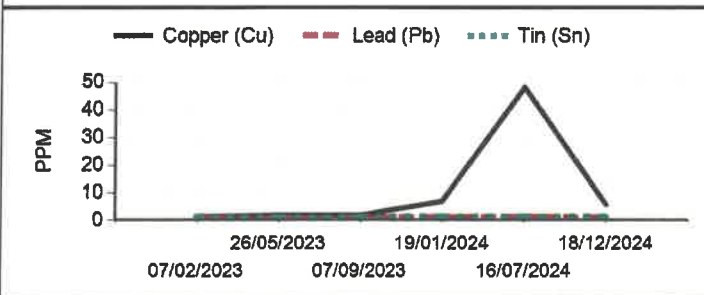
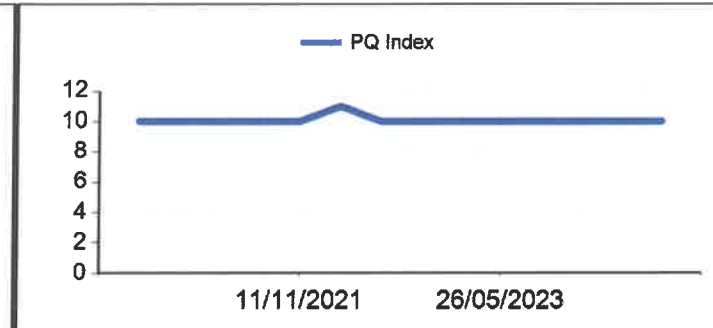
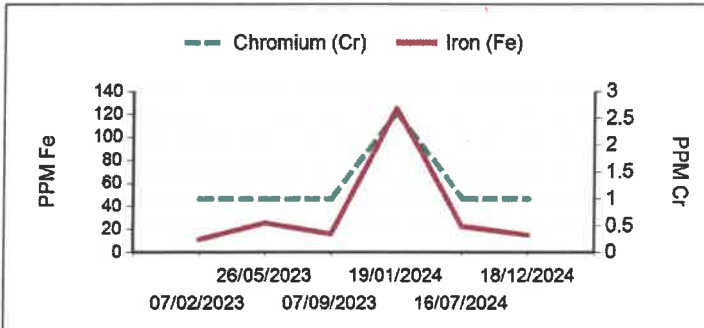
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0808BCA

Transmission

Unit No. 1906

Unit:
Make Ford
Model Transit
Serial No. 1FDES8PM0KKB17068

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Advise carry out transmission performance pressure checks. Advise change filters if not already done. Resample after corrective action to further monitor.

DATE SAMPLED	17-Dec-24	22-Aug-24	01-May-24	02-Jan-24	05-Jul-23	24-Jan-23
DATE RECEIVED	26-Dec-24	12-Sep-24	15-May-24	17-Jan-24	14-Jul-23	01-Feb-23
DATE REPORTED	27-Dec-24	13-Sep-24	16-May-24	19-Jan-24	18-Jul-23	03-Feb-23

LAB NO.	44023532487	44023441481	44023335667	44023229563	44023069483	44022929707
SIF NO.	704538865	702897492	702897561	702897520	701689982	700592807
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL TYPE	Mercon LV	Mercon LV	Mercon LV	Mercon LV	Mercon LV	Mercon LV
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	3.0			3.0	3.0
FILTER	mi					
OIL CHANGED		Not Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	104	130	101	110	93	86
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	1	<1	<1	<1
Copper (Cu)	11	14	14	13	16	18
Tin (Sn)	<1	1	1	<1	2	1
Aluminium (Al)	64	82	60	50	41	35
Nickel (Ni)	4	6	4	5	5	5
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	12	16	12	12	11	8
Sodium (Na)	2	3	<1	<1	<1	<1
Potassium (K)	<1	<1	<1	<1	1	<1

Additives (ppm)						
Magnesium (Mg)	2	2	3	5	2	3
Calcium (Ca)	129	130	130	125	141	131
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	199	212	216	198	211	237
Zinc (Zn)	8	6	8	9	5	6
Molybdenum (Mo)	2	3	3	4	4	5
Boron (B)	69	67	70	76	85	71

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.9	5.6	5.7	5.7	5.7	5.7
Solids (%)	<0.1	<0.1	<0.1	0.1	<0.1	<0.1

Additional						
PQ Index	21	25	18	23	23	16

ANALYST: aaron.cotton

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

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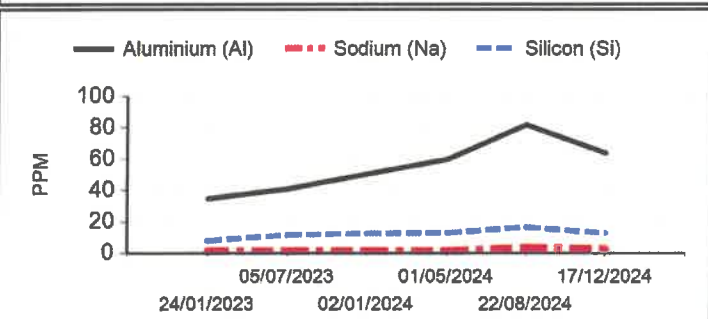
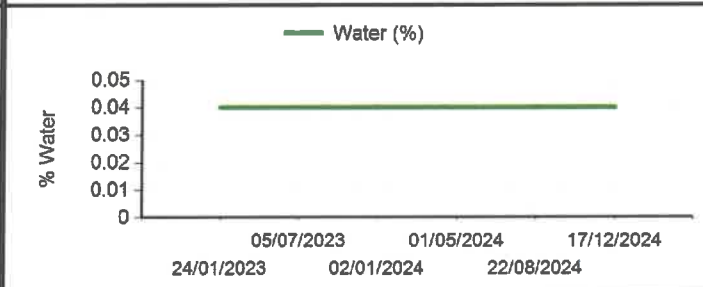
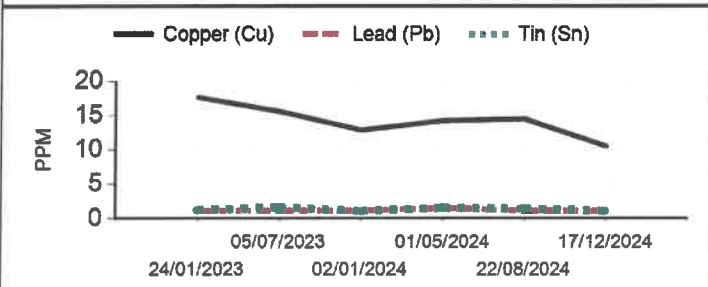
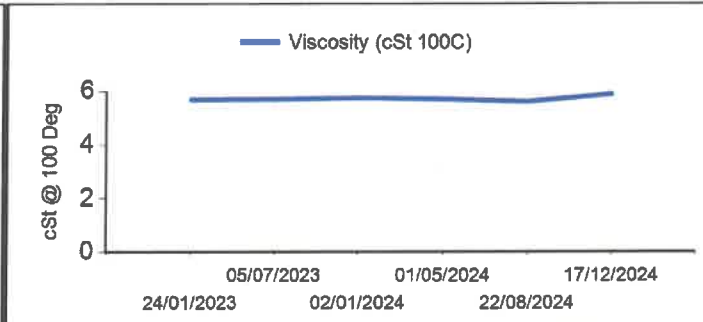
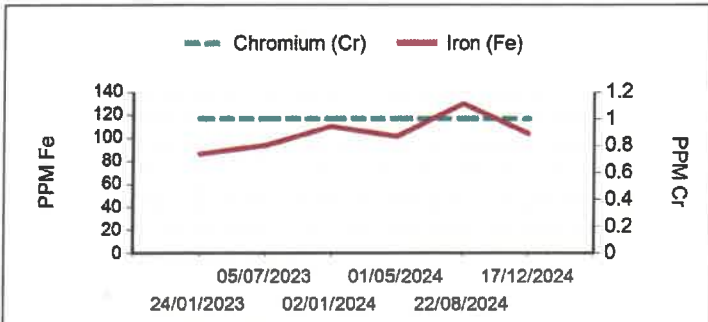
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Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42C4

Gasoline Engine

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FNXRDD38867

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	06-Feb-25	04-Nov-24	30-Aug-24	12-Jul-24
DATE RECEIVED	11-Feb-25	14-Nov-24	11-Oct-24	31-Jul-24
DATE REPORTED	12-Feb-25	15-Nov-24	12-Oct-24	02-Aug-24

LAB NO.	44023571108	44023498369	44023468884	44023403748
SIF NO.	704538950	704538931	704538868	702897508
TIME ON UNIT	mi			
TIME ON OIL	mi			
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	8.0	8.0		8.0
FILTER	mi			
OIL CHANGED	Changed	Changed	Changed	Changed
WO NUMBER				

Metals (ppm)				
Iron (Fe)	9	11	10	16
Chromium (Cr)	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1
Copper (Cu)	<1	2	3	12
Tin (Sn)	<1	<1	<1	<1
Aluminium (Al)	2	2	3	4
Nickel (Ni)	<1	<1	<1	1
Silver (Ag)	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1

Contaminants (ppm)				
Silicon (Si)	13	17	18	30
Sodium (Na)	9	11	13	7
Potassium (K)	1	2	3	3

Additives (ppm)				
Magnesium (Mg)	428	501	491	517
Calcium (Ca)	1137	1343	1310	1429
Barium (Ba)	<1	<1	<1	<1
Phosphorus (P)	618	728	697	702
Zinc (Zn)	736	871	852	904
Molybdenum (Mo)	258	300	290	259
Boron (B)	24	18	21	36

Contaminants				
Water (%)	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No

Physical Tests				
Viscosity (cSt 100C)	9.9	9.4	10.5	10.3
PQ Index	12	<10	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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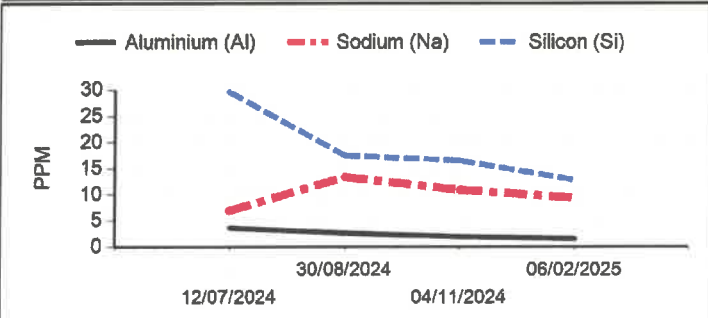
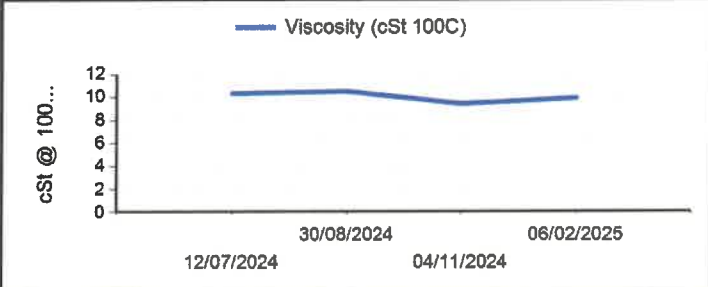
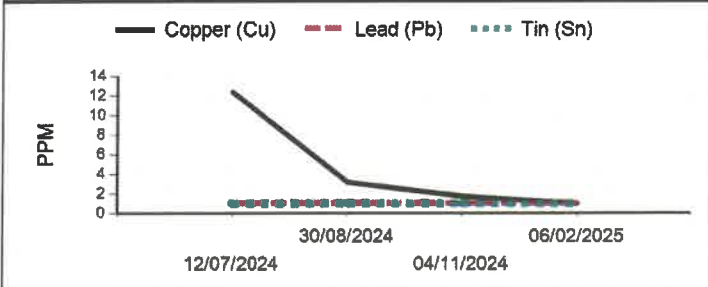
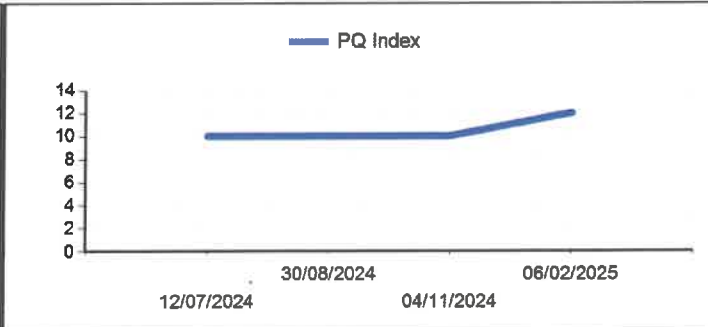
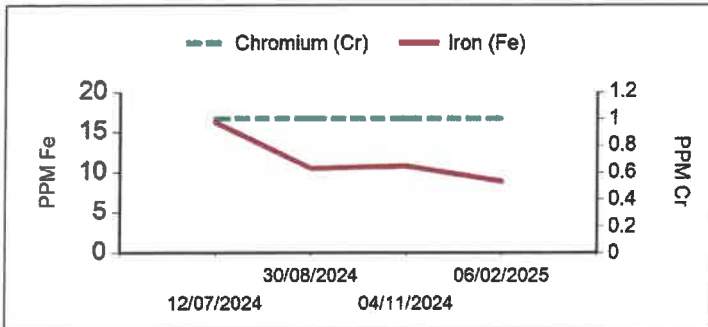
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42C5

Transmission

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FDPE4FNXRDD38867

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Elevated aluminum possibly due to housing, piston or torque converter wear. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Check for any abnormal drive train noise/vibrations. Change oil and filter(s) if not already done. Resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	06-Feb-25	04-Nov-24	30-Aug-24	12-Jul-24
DATE RECEIVED	11-Feb-25	14-Nov-24	11-Oct-24	31-Jul-24
DATE REPORTED	13-Feb-25	15-Nov-24	12-Oct-24	02-Aug-24

LAB NO.	44023571109	44023498370	44023468885	44023403754
SIF NO.	704538951	704538930	704538869	702897507
TIME ON UNIT	mi			
TIME ON OIL	mi			
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown
OIL ADDED		6.0		
FILTER	mi			
OIL CHANGED	Not Changed	Changed	Not Changed	Not Changed
WO NUMBER				

Metals (ppm)				
Iron (Fe)	51	60	42	34
Chromium (Cr)	<1	<1	<1	<1
Lead (Pb)	<1	1	<1	<1
Copper (Cu)	32	44	35	36
Tin (Sn)	2	2	1	<1
Aluminium (Al)	33	39	24	15
Nickel (Ni)	3	4	3	3
Silver (Ag)	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1

Contaminants (ppm)				
Silicon (Si)	7	7	6	6
Sodium (Na)	3	4	4	5
Potassium (K)	1	2	2	1

Additives (ppm)				
Magnesium (Mg)	2	2	2	1
Calcium (Ca)	114	118	118	122
Barium (Ba)	1	1	1	1
Phosphorus (P)	185	192	188	185
Zinc (Zn)	6	6	6	4
Molybdenum (Mo)	10	14	12	13
Boron (B)	67	69	69	71

Contaminants				
Water (%)	<0.05	<0.05	<0.05	<0.05

Physical Tests				
Viscosity (cSt 100C)	5.7	5.7	5.7	5.7
Solids (%)	<0.1	<0.1	<0.1	0.1

Additional				
PQ Index	18	17	14	13



UIN 0AC42C5

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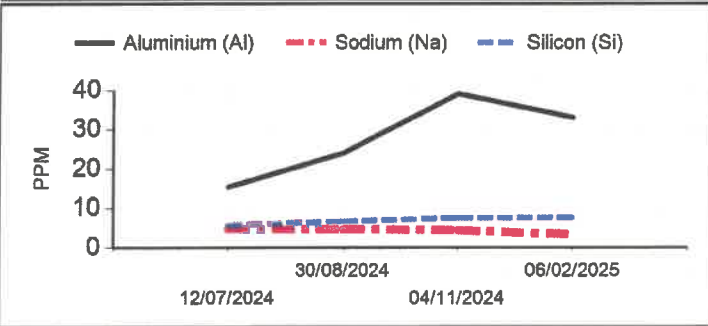
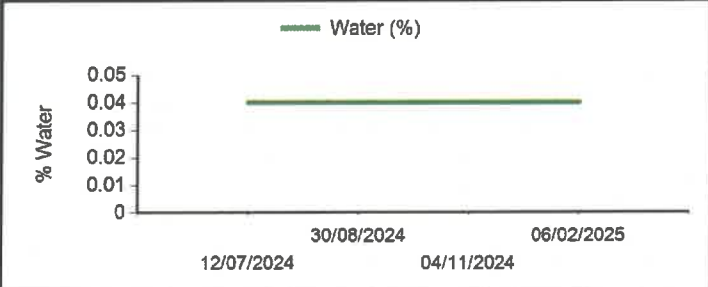
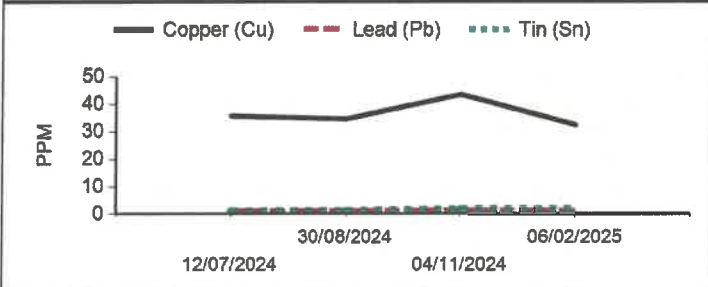
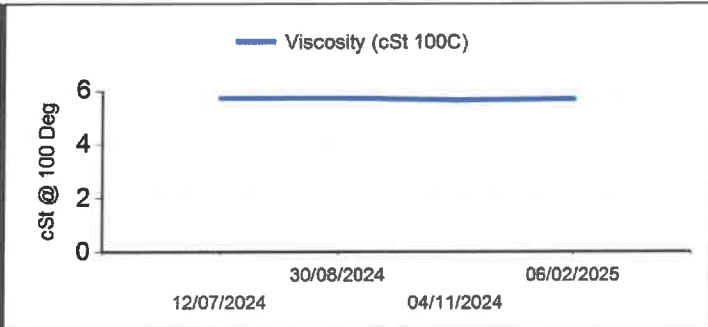
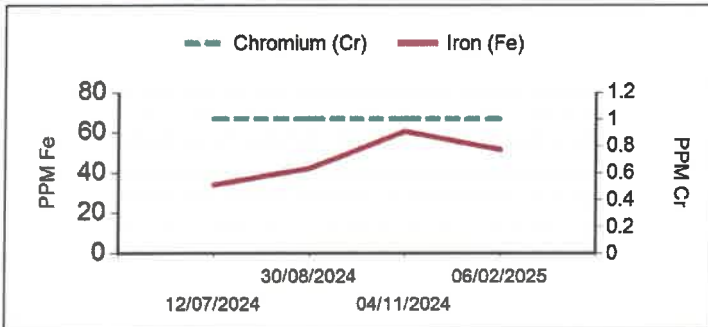
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 086A56A

Transmission

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Torque converter/pump wear indicated. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Advise carry out transmission performance pressure checks. As oil already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	31-Jan-25	18-Oct-24	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23
DATE RECEIVED	11-Feb-25	29-Oct-24	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23
DATE REPORTED	13-Feb-25	31-Oct-24	02-Jul-24	26-Mar-24	10-Nov-23	27-Jun-23
LAB NO.	44023571105	44023485544	44023376818	44023289152	44023169868	43021792840
SIF NO.	704538955	704538925	702897553	702897588	701689945	701689896
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	80	68	79	79	65	59
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	9	8	9	13	11	12
Tin (Sn)	2	2	2	2	1	<1
Aluminium (Al)	52	46	46	46	25	20
Nickel (Ni)	2	2	2	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	10	9	<1	6	6
Sodium (Na)	1	1	2	3	2	3
Potassium (K)	<1	<1	1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	2	2	2	1	3	6
Calcium (Ca)	123	128	124	143	118	162
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	190	198	184	211	183	212
Zinc (Zn)	5	5	4	10	5	18
Molybdenum (Mo)	2	2	2	3	3	5
Boron (B)	70	66	71	62	65	83
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.9	5.7	5.7	5.8	5.8	5.8
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	24	20	19	17	21	14

Right Solutions • Right Partner



UIN 086A56A

U.S. Laboratories

Atlanta, Georgia - 420 **Valley View, Ohio - 410**
 5300 OakBrook Parkway 6180 Halle Dr. Suite D
 Building 200 Suite 245 Valley View, OH 44125
 Norcross, GA 30093 800.726.5400
 800.394.3669

Kansas City, Kansas - 430 **Phoenix, Arizona - 440**
 935 Sunshine Road 3319 West Earl Drive
 Kansas City, KS 66115 Phoenix, AZ 85017
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Portland, Oregon - 401

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International Locations

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

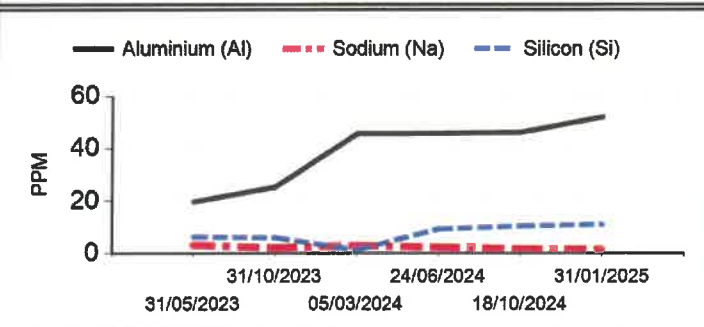
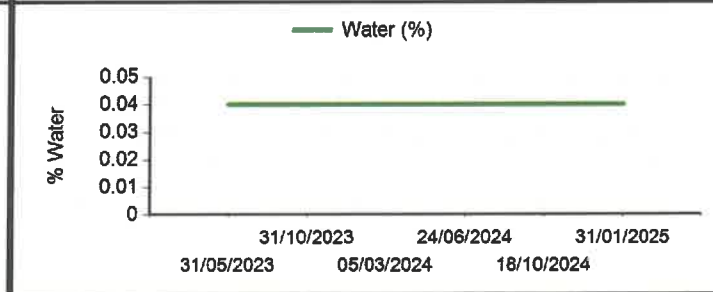
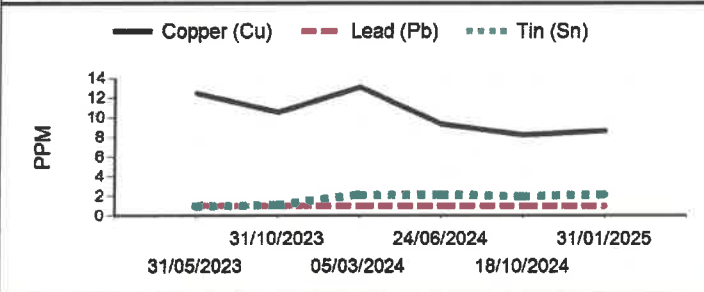
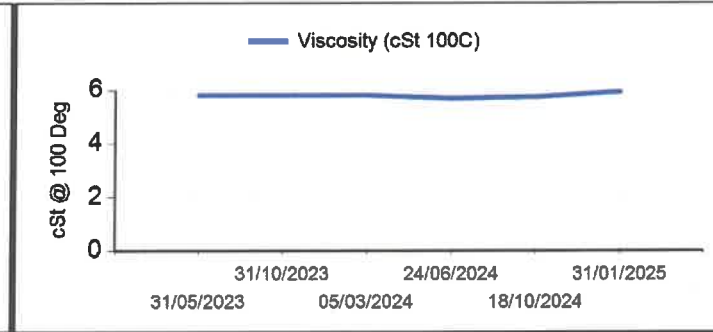
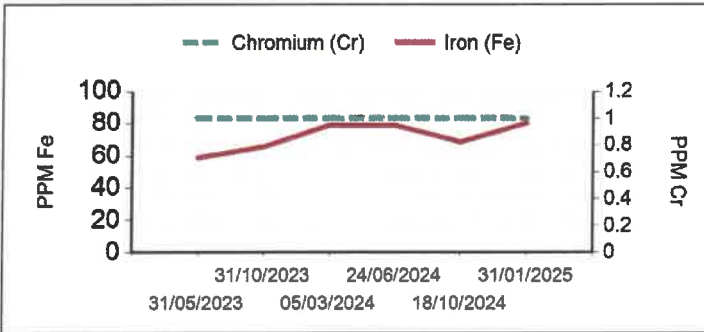
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

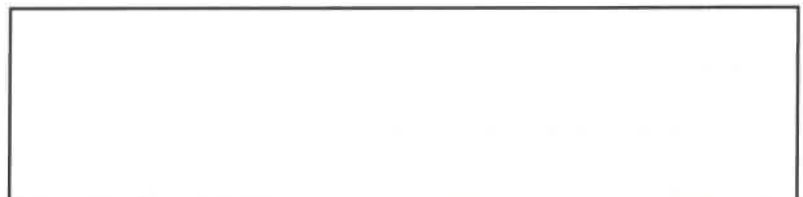
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 081ABA1

Transmission

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity: 8.0

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Torque converter/pump wear indicated. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Viscosity within specified operating range. Action: Advise carry out transmission performance pressure checks. Drain oil from unit if not already changed. Resample after corrective action to further monitor.

ANALYST: aaron.cotton

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

DATE SAMPLED	30-Jan-25	22-Oct-24	20-Jun-24	07-Mar-24	09-Oct-23	25-May-23
DATE RECEIVED	11-Feb-25	29-Oct-24	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23
DATE REPORTED	13-Feb-25	31-Oct-24	02-Jul-24	26-Mar-24	23-Oct-23	08-Jun-23
LAB NO.	44023571107	44023485538	44023376816	44023289157	44023153375	44023033927
SIF NO.	704538954	704538921	702897552	702897584	701689938	701689979
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED		3.0	3.0	3.0		
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	117	106	82	90	102	77
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	8	8	11	11	10
Tin (Sn)	5	5	3	4	3	3
Aluminium (Al)	93	90	70	87	82	55
Nickel (Ni)	4	4	3	3	4	5
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	19	17	12	5	12	9
Sodium (Na)	1	1	2	2	<1	1
Potassium (K)	<1	<1	<1	<1	2	<1
Additives (ppm)						
Magnesium (Mg)	2	2	3	3	4	5
Calcium (Ca)	115	122	127	133	127	133
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	180	190	180	198	194	176
Zinc (Zn)	4	4	6	6	7	7
Molybdenum (Mo)	1	1	1	2	2	3
Boron (B)	64	63	66	58	72	64
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.8	5.8	5.8	5.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Additional						
PQ Index	31	25	20	16	12	12



UIN 081ABA1

U.S. Laboratories

Atlanta, Georgia - 420
 5300 Oakbrook Parkway
 Building 200 Suite 245
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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

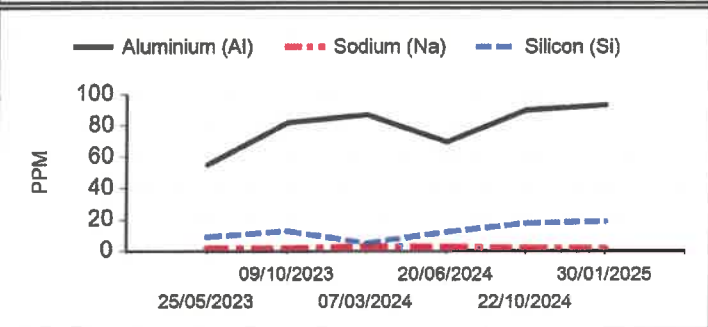
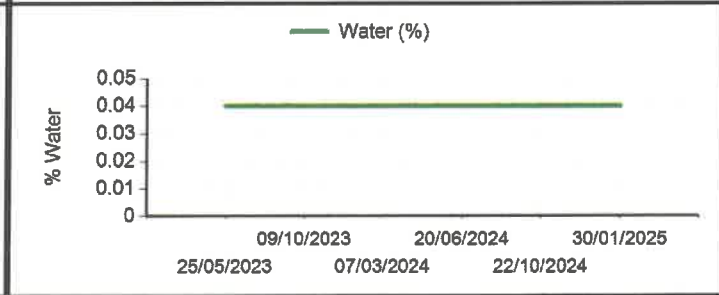
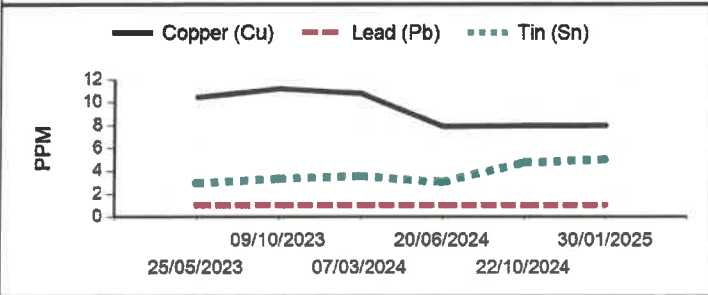
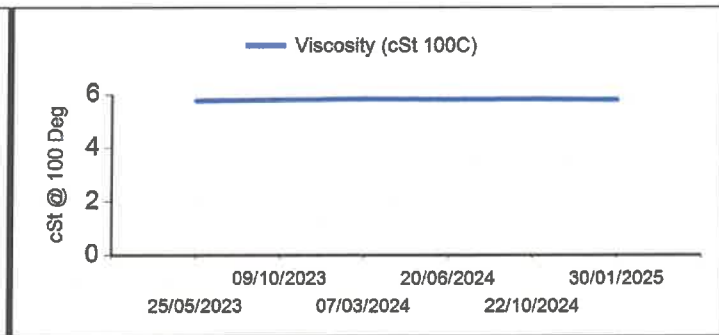
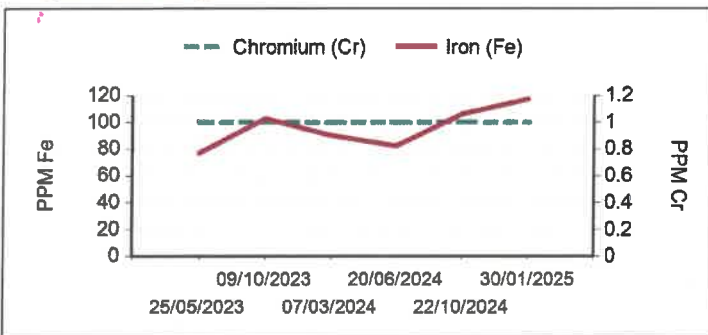
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07CB197

Gasoline Engine

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	30-Jan-25	22-Oct-24	20-Jun-24	01-Mar-24	09-Oct-23	25-May-23
DATE RECEIVED	11-Feb-25	29-Oct-24	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23
DATE REPORTED	12-Feb-25	30-Oct-24	01-Jul-24	25-Mar-24	23-Oct-23	14-Jun-23

LAB NO.	44023571106	44023485537	44023376815	44023289156	44023153376	44023033926
SIF NO.	704538953	704538920	702897551	702897583	701689939	701689978
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Havoline ProDS Full	Havoline ProDS Full	Havoline ProDS	Havoline ProDS Full	Havoline ProDS	Havoline ProDS
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	22	16	32	31	426	44
Chromium (Cr)	<1	<1	<1	<1	6	1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	1	2	2	18	3
Tin (Sn)	<1	<1	<1	<1	2	1
Aluminium (Al)	4	3	5	10	166	11
Nickel (Ni)	<1	<1	3	<1	4	1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	12	13	19	17	106	29
Sodium (Na)	13	9	9	6	18	10
Potassium (K)	2	<1	2	1	3	<1

Additives (ppm)						
Magnesium (Mg)	480	489	560	552	577	541
Calcium (Ca)	1344	1373	1410	1648	1611	1523
Barium (Ba)	<1	<1	<1	<1	19	<1
Phosphorus (P)	704	710	719	786	799	702
Zinc (Zn)	850	849	946	981	975	869
Molybdenum (Mo)	292	296	299	326	328	308
Boron (B)	17	14	20	15	22	17

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.0	8.1	8.6	8.7	10.3	10.0
PQ Index	17	11	<10	<10	33	15





UIN 07CB197

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
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 935 Sunshine Road
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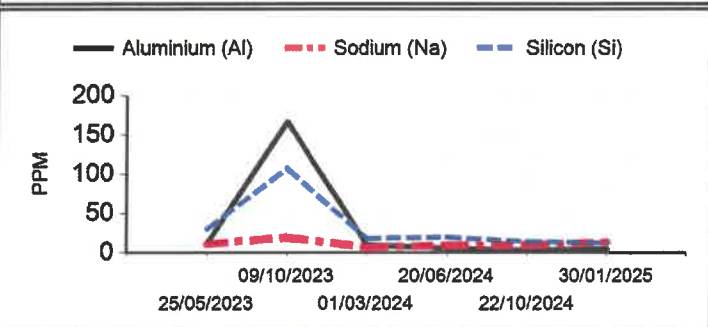
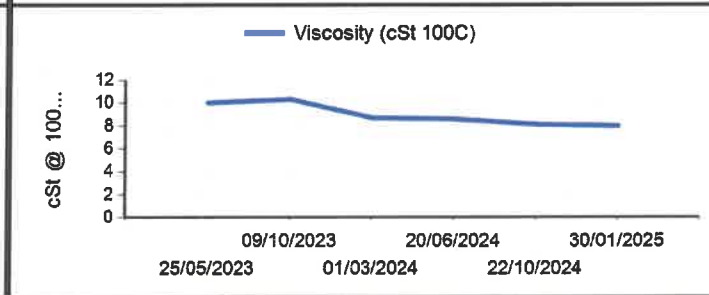
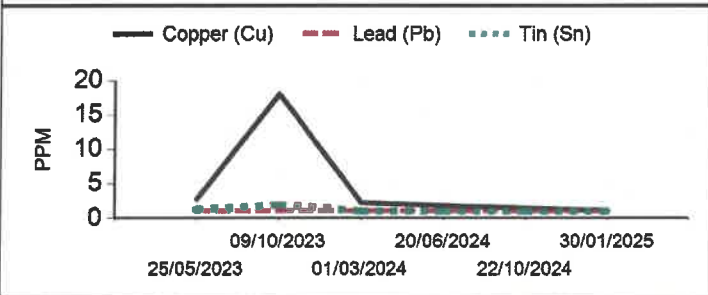
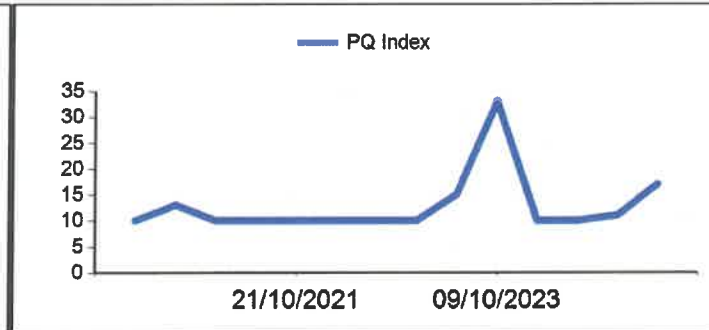
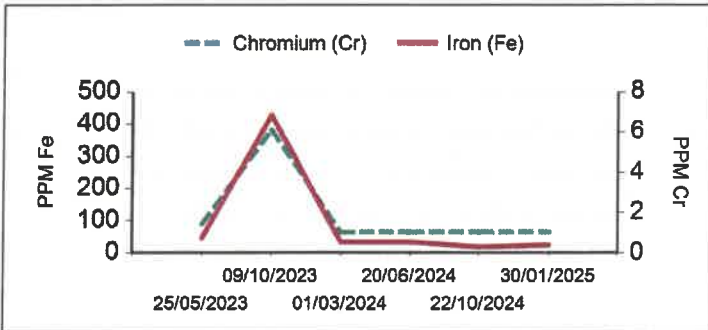
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setafash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AFBBC4

Gasoline Engine

Unit No. 2407

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FN5RDD39201

Site

Compartment:

Name Gasoline Engine
Make
Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	27-Jan-25	30-Oct-24
DATE RECEIVED	11-Feb-25	14-Nov-24
DATE REPORTED	12-Feb-25	15-Nov-24

LAB NO.		44023571112	44023498371
SIF NO.		704538952	704538932
TIME ON UNIT	mi		
TIME ON OIL	mi		
OIL BRAND		Unidentified	Unidentified
OIL TYPE		Unidentified	Unidentified
OIL GRADE		SAE 5W30	SAE 5W30
OIL ADDED		8.0	8.0
FILTER	mi		
OIL CHANGED		Changed	Changed
WO NUMBER			

Metals (ppm)		
Iron (Fe)	10	18
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	3	12
Tin (Sn)	<1	<1
Aluminium (Al)	2	4
Nickel (Ni)	<1	<1
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	14	30
Sodium (Na)	10	7
Potassium (K)	1	4

Additives (ppm)		
Magnesium (Mg)	429	491
Calcium (Ca)	1106	1345
Barium (Ba)	<1	<1
Phosphorus (P)	602	730
Zinc (Zn)	725	872
Molybdenum (Mo)	247	275
Boron (B)	21	28

Contaminants		
Water (%)	<0.05	<0.05
Coolant	No	No

Physical Tests		
Viscosity (cSt 100C)	10.0	10.1
PQ Index	12	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AFBBC4

U.S. Laboratories

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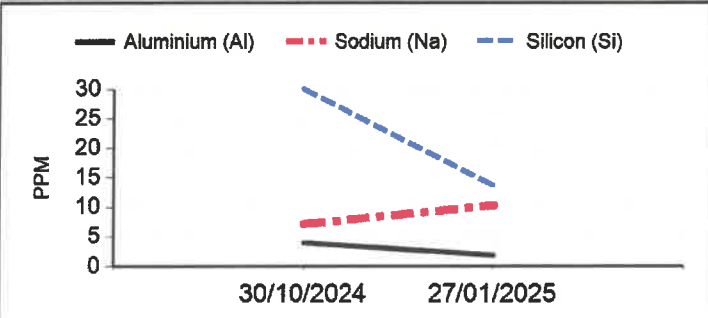
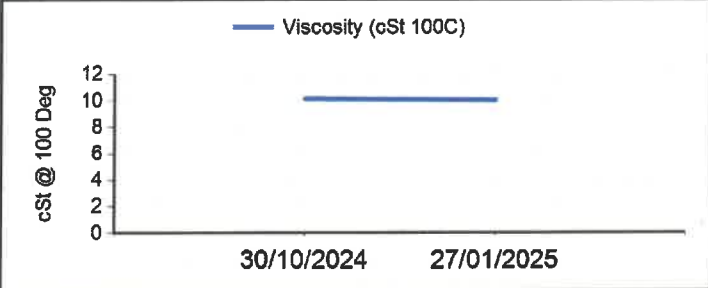
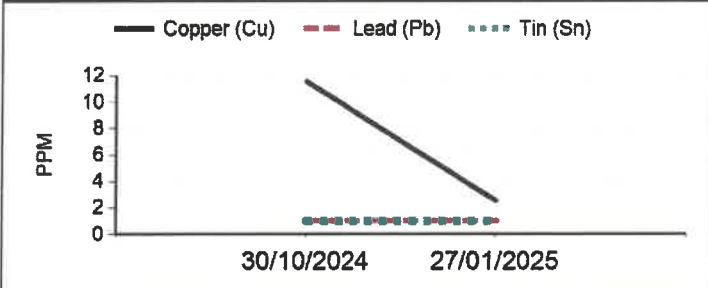
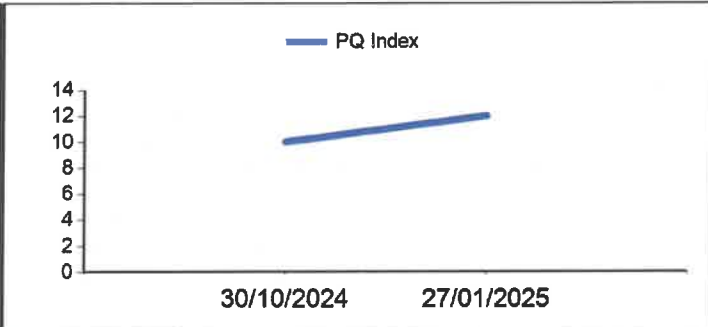
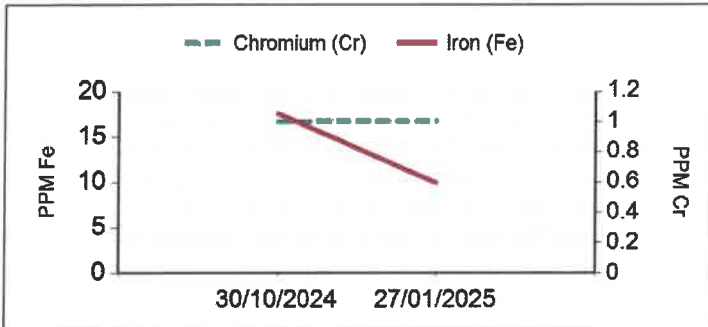
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AFBBC5

Transmission

Unit No. 2407

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FN5RDD39201

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

Elevated aluminum possibly due to housing, piston or torque converter wear. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Advise carry out transmission performance pressure checks. Change oil and filter(s) if not already done. Resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

	LEGEND			
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	27-Jan-25	30-Oct-24
DATE RECEIVED	11-Feb-25	14-Nov-24
DATE REPORTED	13-Feb-25	15-Nov-24

LAB NO.	44023571113	44023498372
SIF NO.	704538946	704538933
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown
OIL ADDED		6.0
FILTER	mi	
OIL CHANGED	Not Changed	Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	51	31
Chromium (Cr)	<1	<1
Lead (Pb)	2	2
Copper (Cu)	34	27
Tin (Sn)	1	<1
Aluminium (Al)	36	15
Nickel (Ni)	3	3
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	7	7
Sodium (Na)	3	4
Potassium (K)	1	<1

Additives (ppm)		
Magnesium (Mg)	2	1
Calcium (Ca)	113	118
Barium (Ba)	1	<1
Phosphorus (P)	186	196
Zinc (Zn)	6	5
Molybdenum (Mo)	11	10
Boron (B)	64	71

Contaminants		
Water (%)	<0.05	<0.05

Physical Tests		
Viscosity (cSt 100C)	5.8	5.8
Solids (%)	<0.1	<0.1

Additional		
PQ Index	19	12

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UIN 0AFBBC5

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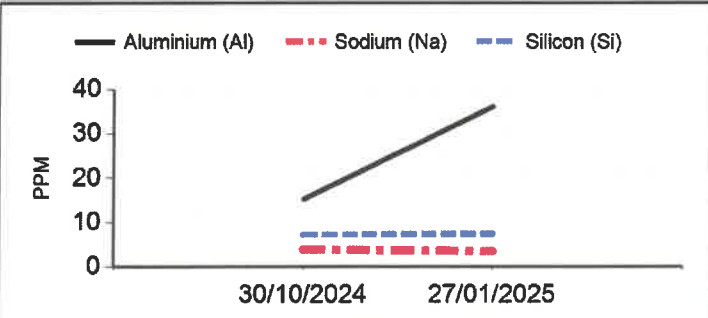
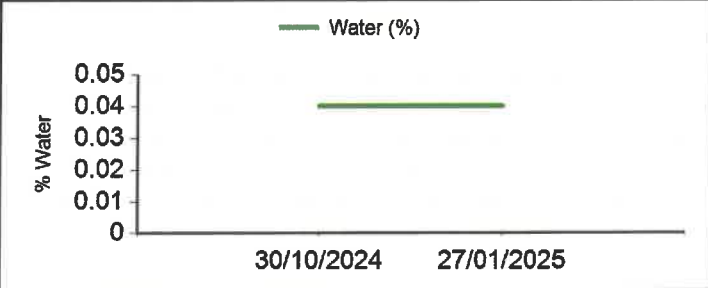
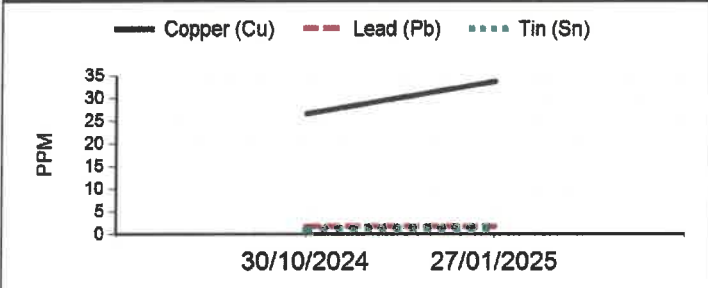
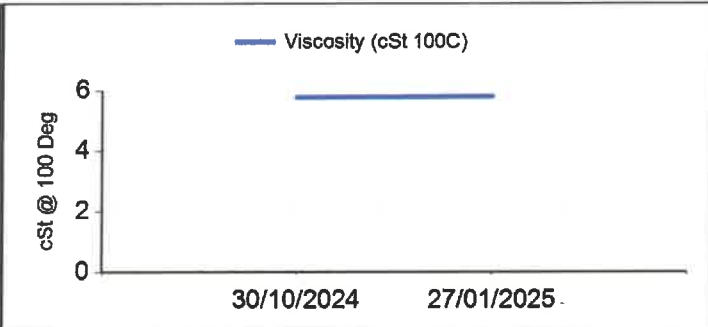
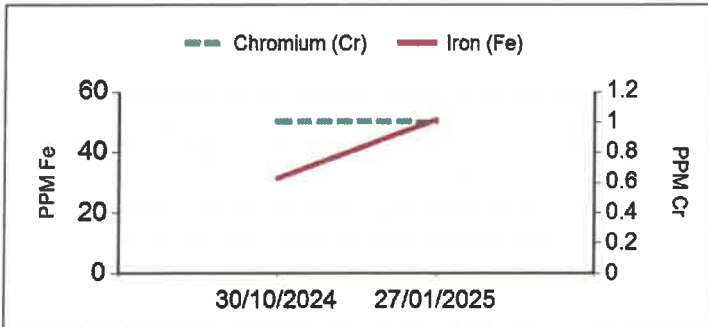
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AFC731

Transmission

Unit No. 2403

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4FN5RDD39182

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: Resample next service interval to further monitor.

Table with 3 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED. Values include 16-Jan-25, 11-Feb-25, 12-Feb-25, 01-Nov-24, 15-Nov-24, 15-Nov-24.

Table with 3 columns: LAB NO., SIF NO., TIME ON UNIT, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER. Values include 44023571111, 704538947, 44023499354, 704538928, Unidentified, Unknown, 6.0, Not Changed, Changed.

Table with 3 columns: Metals (ppm). Rows include Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V). Values range from <1 to 39.

Table with 3 columns: Contaminants (ppm). Rows include Silicon (Si), Sodium (Na), Potassium (K). Values range from 1 to 7.

Table with 3 columns: Additives (ppm). Rows include Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B). Values range from 1 to 196.

Table with 3 columns: Contaminants. Row: Water (%). Values: <0.05, <0.05.

Table with 3 columns: Physical Tests. Rows: Viscosity (cSt 100C), Solids (%). Values: 5.8, 5.7, <0.1, <0.1.

Table with 3 columns: Additional. Row: PQ Index. Values: 15, 16.



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal (green checkmark), Severe (red stop), Abnormal (blue wrench), Caution (yellow exclamation mark), and Normal (green checkmark).



UIN 0AFC731

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Wellington

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Kuala Lumpur, Singapore

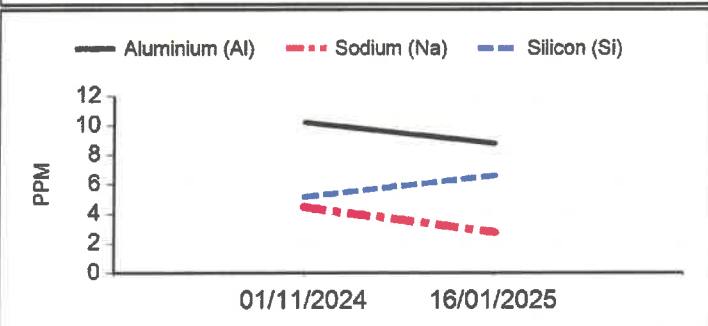
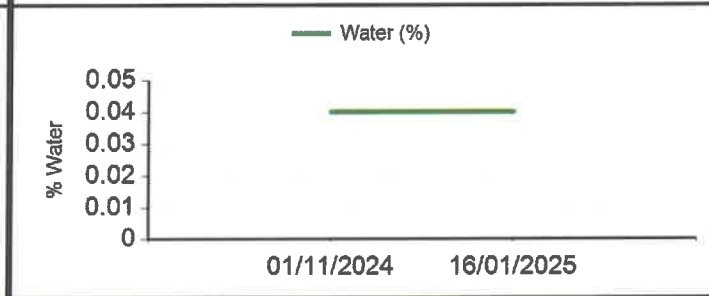
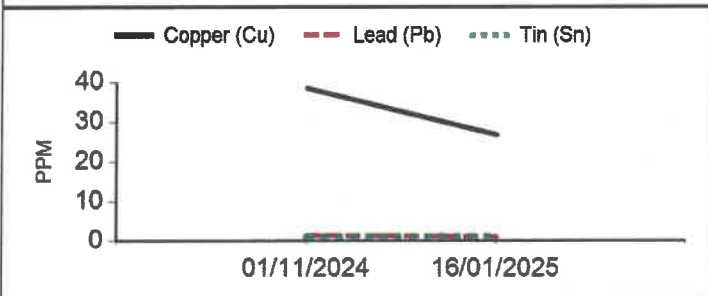
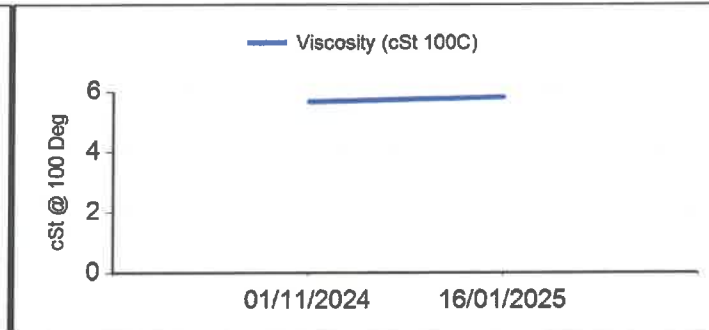
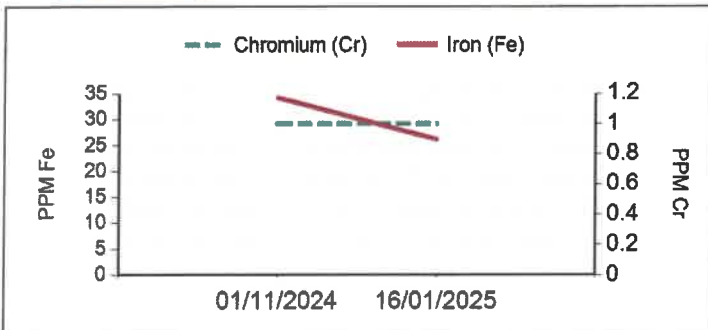
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AFC730

Gasoline Engine

Unit No. 2403

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4FN5RDD39182

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 8.0 qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	16-Jan-25	01-Nov-24
DATE RECEIVED	11-Feb-25	15-Nov-24
DATE REPORTED	12-Feb-25	15-Nov-24

LAB NO.	44023571110	44023499353
SIF NO.	704538948	704538929
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30
OIL ADDED	qt	8.0
FILTER	mi	8.0
OIL CHANGED	Changed	Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	6	13
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	2	12
Tin (Sn)	<1	<1
Aluminium (Al)	<1	3
Nickel (Ni)	<1	<1
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	13	29
Sodium (Na)	2	6
Potassium (K)	1	3

Additives (ppm)		
Magnesium (Mg)	468	477
Calcium (Ca)	1243	1354
Barium (Ba)	<1	<1
Phosphorus (P)	687	727
Zinc (Zn)	831	892
Molybdenum (Mo)	285	275
Boron (B)	96	57

Contaminants		
Water (%)	<0.05	<0.05
Coolant	No	No

Physical Tests		
Viscosity (cSt 100C)	9.7	9.6
PQ Index	11	12



ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal



UIN 0AFC730

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 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earl Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
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 800.770.4128

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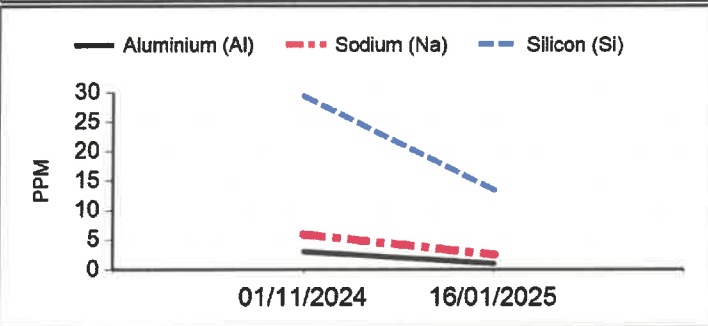
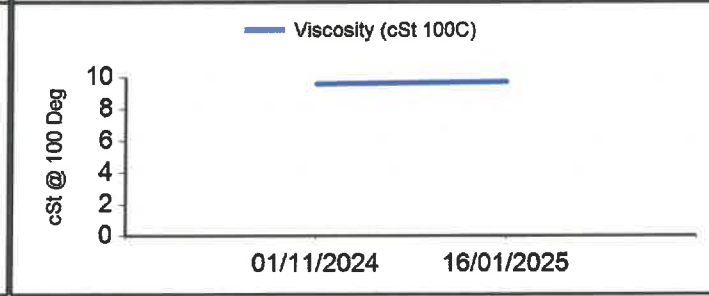
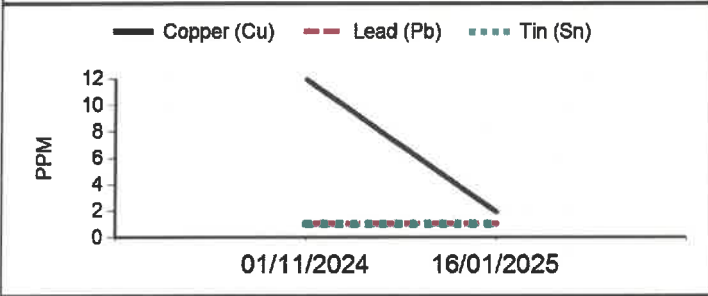
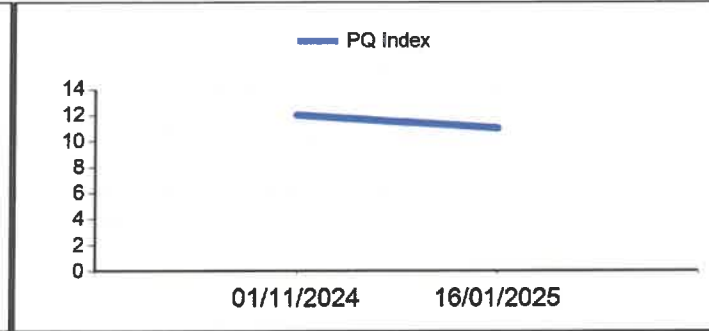
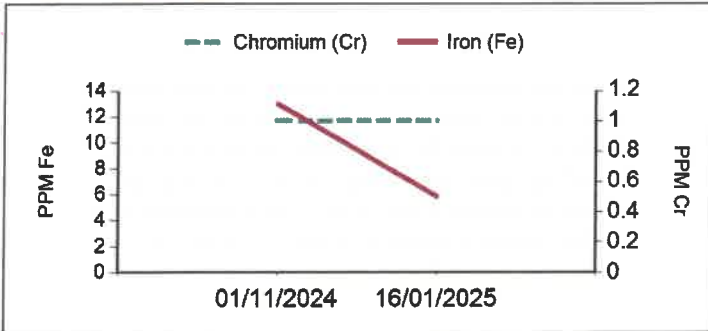
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

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UIN 08046DA

Transmission

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Aluminum level remains higher than typical. However, decrease noted. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next recommended service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

	09-Jan-25	29-Aug-24	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23
DATE SAMPLED	09-Jan-25	29-Aug-24	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23
DATE RECEIVED	20-Jan-25	12-Sep-24	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23
DATE REPORTED	21-Jan-25	13-Sep-24	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23
LAB NO.	44023551026	44023441479	44023318107	44023253081	44023069487	44022956867
SIF NO.	704538900	702897489	702897575	702897512	701689980	700592802
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	3.0	3.0	3.0		3.0
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	46	62	59	75	50	45
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	5	7	7	9	8	7
Tin (Sn)	1	2	2	2	2	1
Aluminium (Al)	29	38	35	44	30	21
Nickel (Ni)	2	2	2	3	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	8	8	7	9	8	10
Sodium (Na)	1	2	2	3	<1	<1
Potassium (K)	1	<1	2	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	1	2	5	7	3	7
Calcium (Ca)	130	134	132	145	143	148
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	197	188	183	200	183	189
Zinc (Zn)	3	5	10	15	6	12
Molybdenum (Mo)	<1	1	3	4	2	4
Boron (B)	64	60	65	63	70	65
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.8	6.0	5.9	5.9	5.7
Solids (%)	<0.1	<0.1	0.1	<0.1	0.1	0.1
Additional						
PQ Index	18	18	20	16	16	10

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UIN 08046DA

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Portland, Oregon - 401

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Portland, OR 97210
800.770.4128

Canadian Laboratories

Burlington, Ontario - 450 5036 South Service Rd. Burlington, ON L7L5Y7 905 332 9559	Edmonton, Alberta - 402 9450 17 Ave NW Edmonton, AB T6N 1M9 +1 (780) 483-1036
---	---

Sales & Marketing

Houston, Texas

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Houston, TX 77099
877.835.8437

International Locations

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South America

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

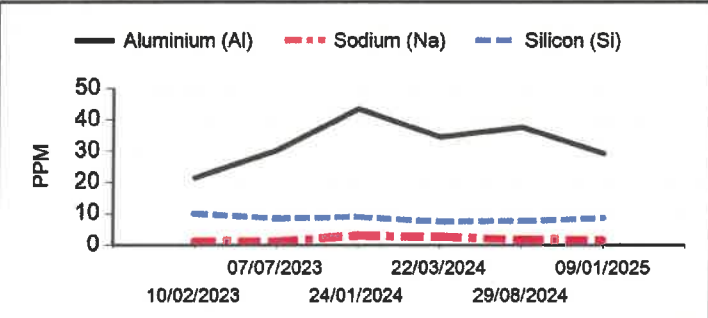
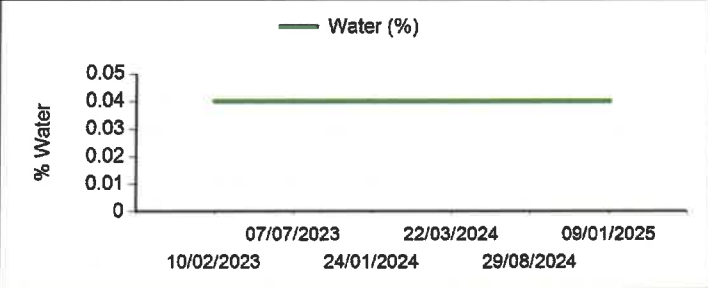
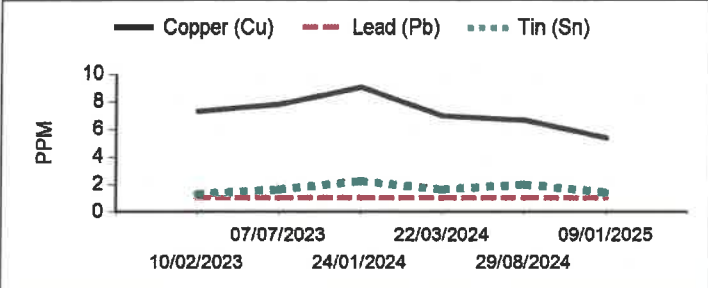
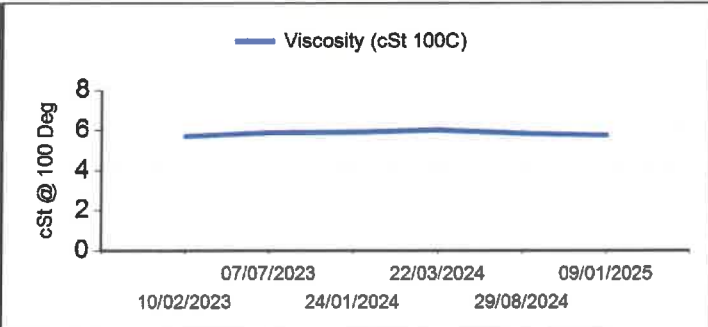
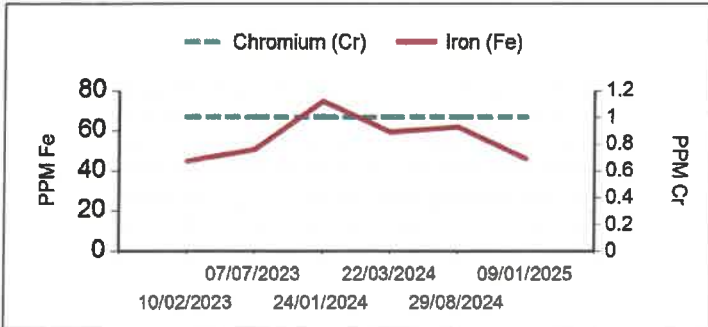
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05CEDA4

Diesel Engine

Unit No. 1602

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU0HCJC8217

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 17.5 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	17-Dec-24	07-Aug-24	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23
DATE RECEIVED	26-Dec-24	14-Aug-24	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23
DATE REPORTED	27-Dec-24	15-Aug-24	26-Apr-24	11-Dec-23	19-Jul-23	13-Mar-23

LAB NO.	44023532488	44023415903	44023318108	44023195906	44023069478	44022956868
SIF NO.	704538864	702897539	702897574	701689956	701689987	700592797
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

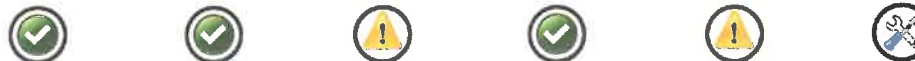
Metals (ppm)						
Iron (Fe)	18	17	22	26	12	13
Chromium (Cr)	<1	<1	<1	1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	9	3	5	6	3	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	4	6	5	5	8
Sodium (Na)	2	<1	2	3	<1	<1
Potassium (K)	6	2	4	5	3	2

Additives (ppm)						
Magnesium (Mg)	123	346	704	759	666	669
Calcium (Ca)	2149	1779	1239	1247	1149	1198
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	928	836	670	729	677	654
Zinc (Zn)	1069	987	788	817	719	741
Molybdenum (Mo)	3	6	9	4	3	3
Boron (B)	9	15	39	29	58	60

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.1	12.7	11.5	12.6	12.1	10.9
Fuel (%)	<1.0	2.20	1.6	2.40	4.3	5.6
PQ Index	11	<10	<10	12	<10	<10
Soot (%) Infrared D7844	0.4	0.5	0.4	0.6	0.2	0.3



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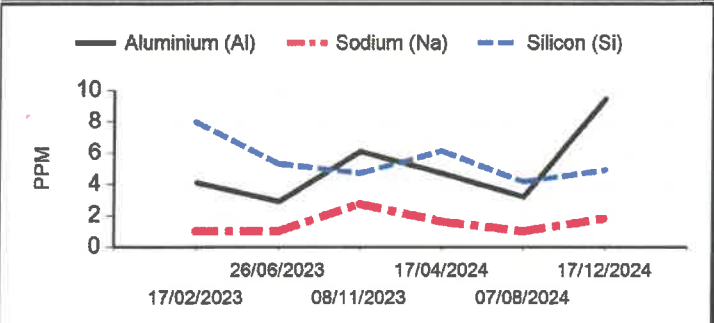
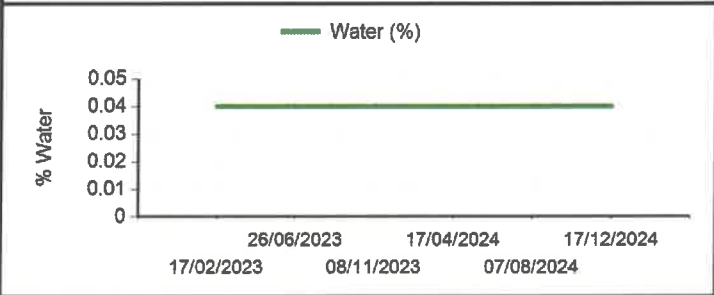
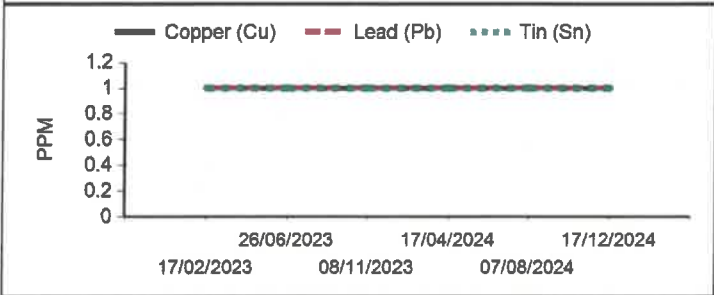
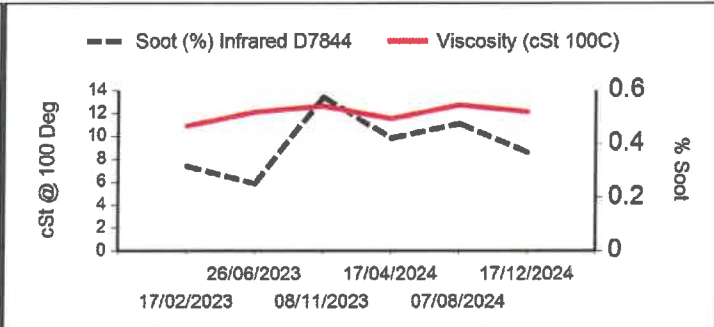
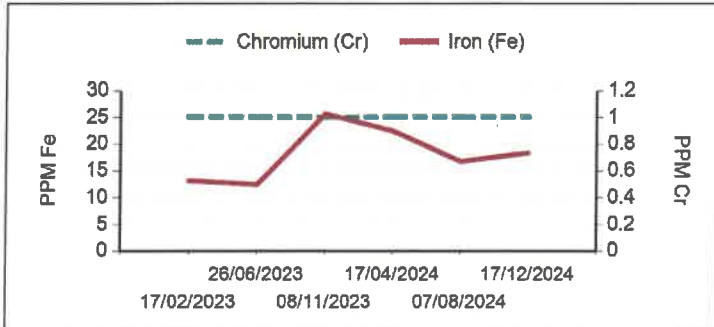
International Locations

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- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05CEDA5

Transmission

Unit No. 1602

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU0HCJC8217

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

	17-Dec-24	07-Aug-24	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23
DATE SAMPLED	17-Dec-24	07-Aug-24	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23
DATE RECEIVED	20-Jan-25	14-Aug-24	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23
DATE REPORTED	21-Jan-25	15-Aug-24	25-Apr-24	11-Dec-23	18-Jul-23	13-Mar-23
LAB NO.	44023551023	44023415904	44023318109	44023195907	44023069479	44022956869
SIF NO.	704538901	702897540	702897573	701689957	701689986	700592800
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt	8.0				8.0
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Not Changed	Not Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	21	27	23	23	25	36
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	3	3	3	3	4	3
Copper (Cu)	13	18	14	15	18	25
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	4	3	3	3	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	3	2	5	7
Sodium (Na)	<1	<1	<1	<1	<1	<1
Potassium (K)	<1	<1	1	2	<1	<1
Additives (ppm)						
Magnesium (Mg)	19	28	24	28	34	33
Calcium (Ca)	78	127	93	109	137	125
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	222	237	217	237	226	238
Zinc (Zn)	26	52	36	42	48	56
Molybdenum (Mo)	<1	<1	<1	<1	1	1
Boron (B)	80	77	84	72	85	85
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.8	6.5	6.6	6.7	6.6	6.5
Solids (%)	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Additional						
PQ Index	<10	<10	12	13	13	<10

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 05CEDA5

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 Valley View, OH 44125
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New Zealand

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Kuala Lumpur, Singapore

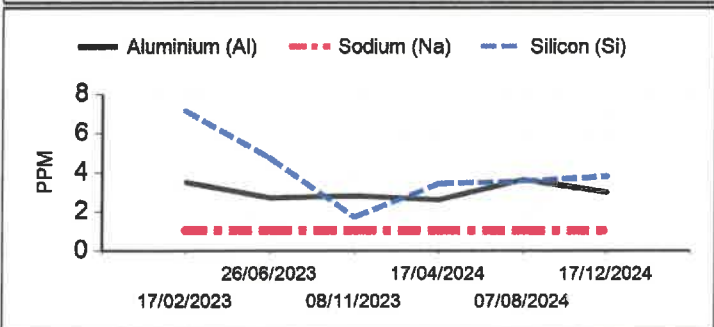
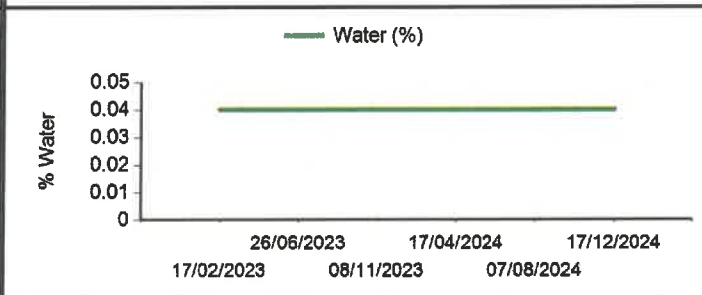
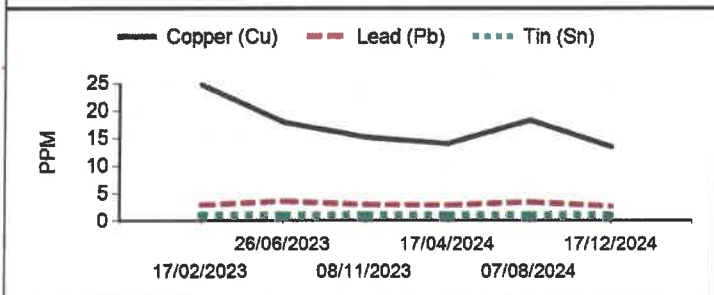
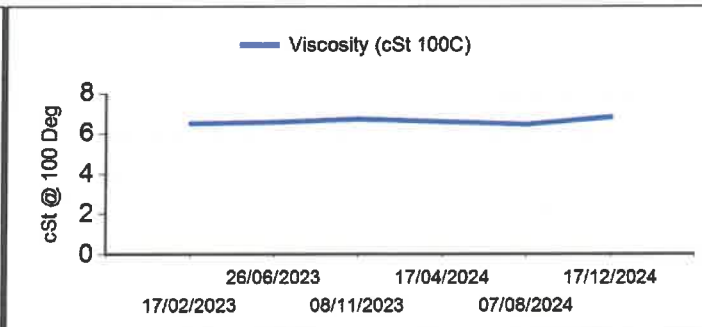
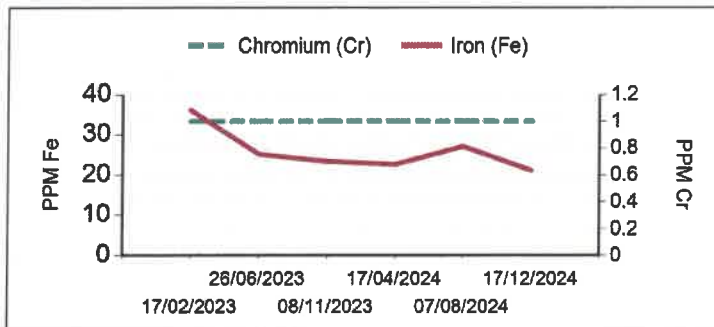
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06266EB

Gasoline Engine

Unit No. 1707

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F52HDC36404

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	11-Dec-24	13-Aug-24	19-Apr-24	04-Dec-23	28-Jun-23	03-Mar-23
DATE RECEIVED	26-Dec-24	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	30-Mar-23
DATE REPORTED	27-Dec-24	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	05-Apr-23
LAB NO.	44023532479	44023441470	44023335662	44023195914	44023069480	44022978402
SIF NO.	704538858	704538885	702897566	701689951	701689984	701689921
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	14	24	19	17	16	23
Chromium (Cr)	<1	<1	<1	<1	<1	1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	4	3	4	3	4
Nickel (Ni)	<1	2	2	1	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	8	12	11	13	13	17
Sodium (Na)	17	37	58	172	29	2
Potassium (K)	2	5	3	14	<1	<1
Additives (ppm)						
Magnesium (Mg)	532	529	490	540	456	545
Calcium (Ca)	1321	1418	1335	1375	1333	1473
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	704	764	708	743	694	760
Zinc (Zn)	833	934	830	887	812	886
Molybdenum (Mo)	292	320	285	299	260	315
Boron (B)	25	11	24	11	16	32
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.1	10.8	10.5	10.7	10.7	9.9
PQ Index	16	<10	<10	11	<10	55



ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 06266EB

U.S. Laboratories

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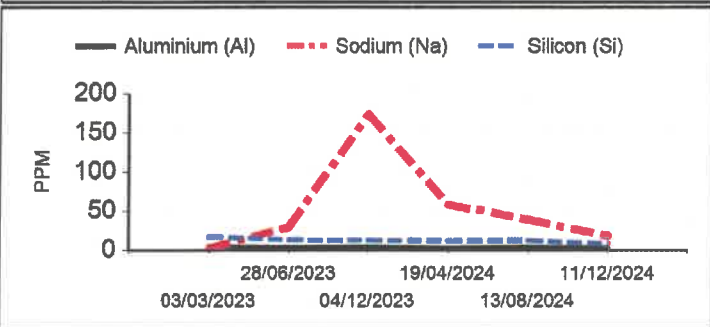
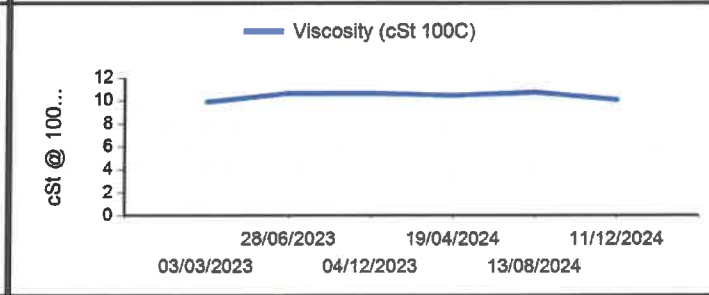
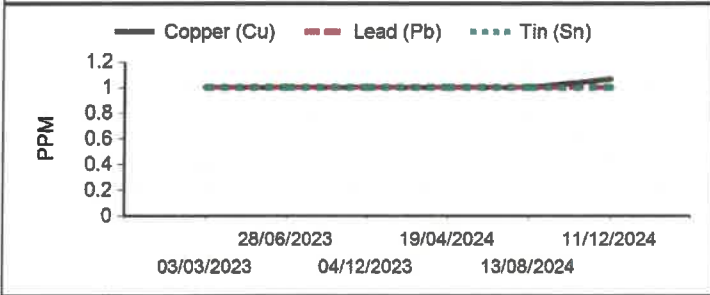
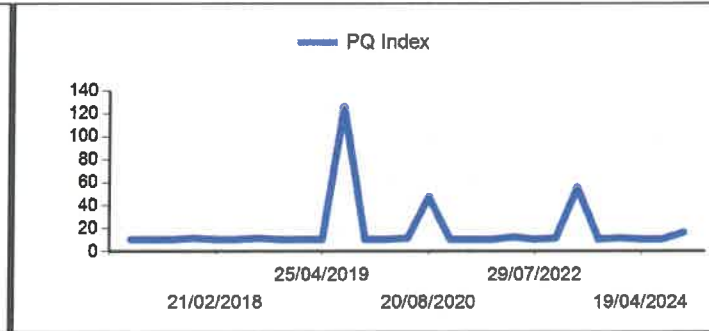
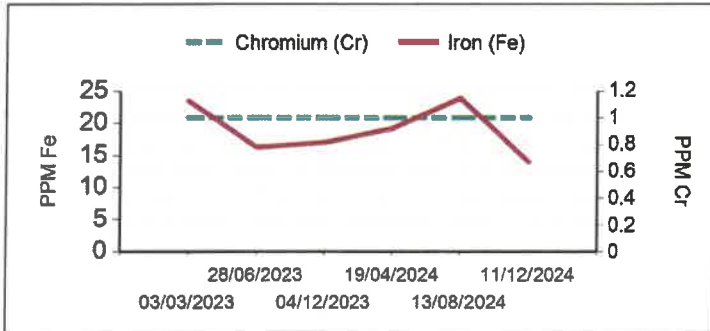
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E9276

Gasoline Engine

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	10-Dec-24	25-Jul-24	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22
DATE RECEIVED	26-Dec-24	14-Aug-24	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23
DATE REPORTED	26-Dec-24	15-Aug-24	25-Mar-24	22-Sep-23	26-May-23	20-Jan-23

LAB NO.	44023532482	44023415905	44023289158	44023128374	44023023690	44022918310
SIF NO.	704538863	702897546	702897582	701689914	701689969	700592868
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	7	7	12	15	16	10
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	<1	2	2	2	2
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	1	4	4	2	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	11	12	14	25	14	13
Sodium (Na)	10	4	6	5	3	5
Potassium (K)	<1	2	<1	1	<1	2

Additives (ppm)						
Magnesium (Mg)	484	539	534	516	476	451
Calcium (Ca)	1294	1245	1580	1600	1306	1307
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	669	658	767	725	648	602
Zinc (Zn)	804	815	949	861	794	736
Molybdenum (Mo)	287	280	315	309	286	268
Boron (B)	20	28	21	25	21	32

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	7.7	7.9	8.3	8.7	8.3	7.7
PQ Index	<10	<10	<10	<10	<10	<10





UIN 07E9276

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

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Burlington, Ontario - 450
 5036 South Service Rd.
 Burlington, ON L7L5Y7
 905 332 9559

Edmonton, Alberta - 402
 9450 17 Ave NW
 Edmonton, AB T6N 1M9
 +1 (780) 483-1036

Sales & Marketing

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 10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand
 Wellington

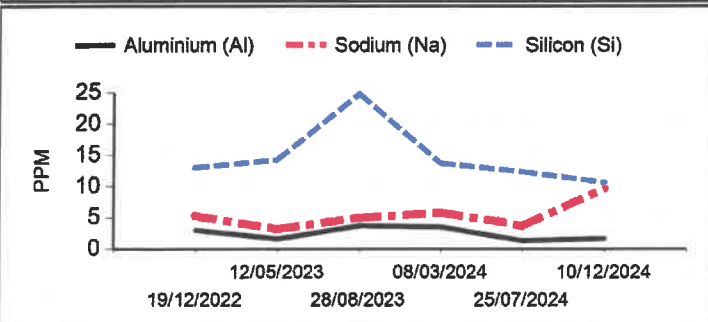
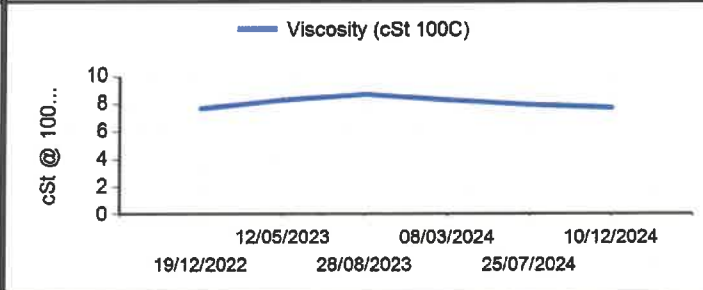
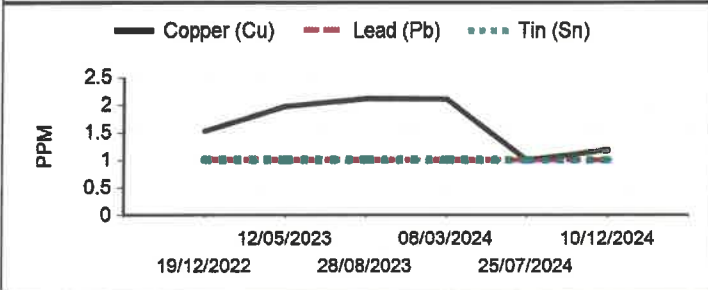
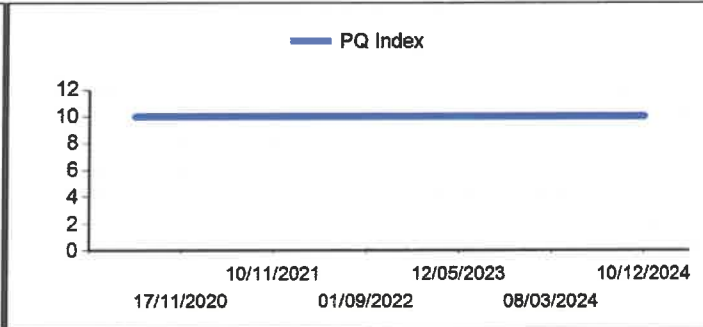
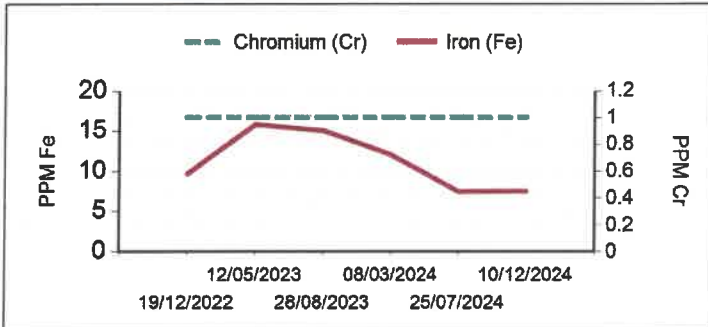
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E9277

Transmission

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	10-Dec-24	25-Jul-24	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22
DATE RECEIVED	26-Dec-24	14-Aug-24	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23
DATE REPORTED	26-Dec-24	15-Aug-24	26-Mar-24	25-Sep-23	26-May-23	20-Jan-23
LAB NO.	44023532483	44023415906	44023289159	44023128375	44023023691	44022918311
SIF NO.	704538861	702897545	702897581	701689915	701689968	700592867
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Chevron
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	Not Applicable					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	42	52	49	60	53	57
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	5	7	8	10	9	10
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	16	18	19	21	17	16
Nickel (Ni)	1	2	2	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	6	<1	7	5	6
Sodium (Na)	1	<1	2	2	2	5
Potassium (K)	<1	<1	<1	<1	<1	2
Additives (ppm)						
Magnesium (Mg)	2	2	2	2	2	2
Calcium (Ca)	123	125	130	139	121	118
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	189	180	191	189	171	166
Zinc (Zn)	3	3	4	4	4	5
Molybdenum (Mo)	1	1	2	2	2	3
Boron (B)	69	64	61	72	64	62
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.9	5.8	5.8	6.0	5.9	5.6
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	15	16	14	14	15	11



UIN 07E9277

U.S. Laboratories

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 5300 OakBrook Parkway
 Building 200 Suite 245
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Wellington

Southeast Asia

Kuala Lumpur, Singapore

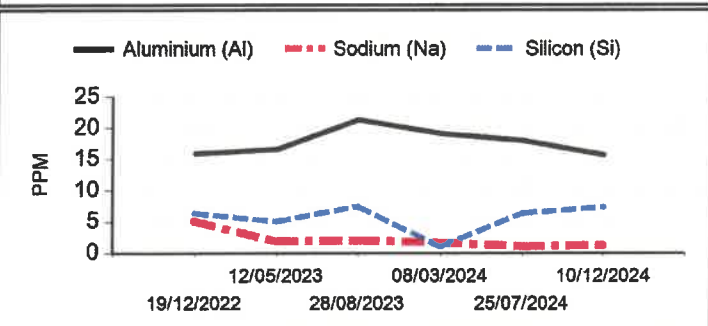
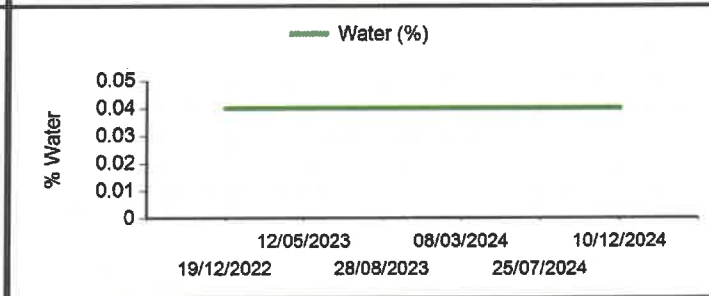
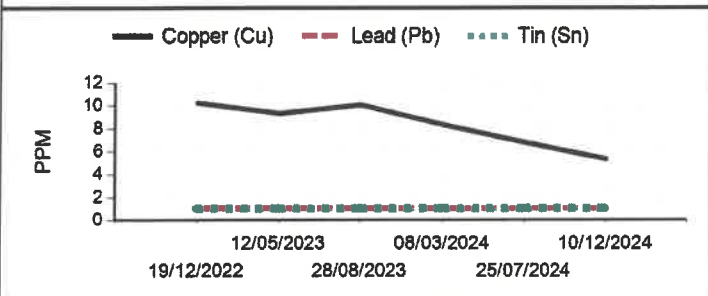
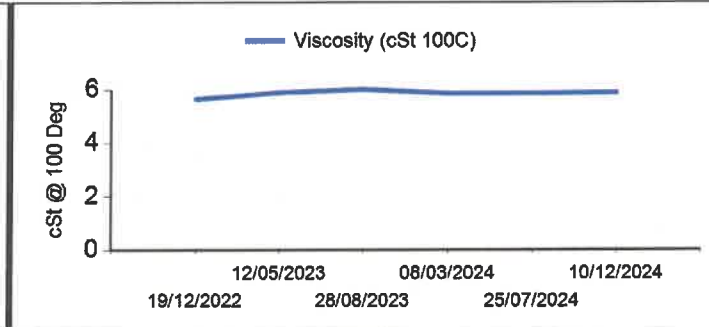
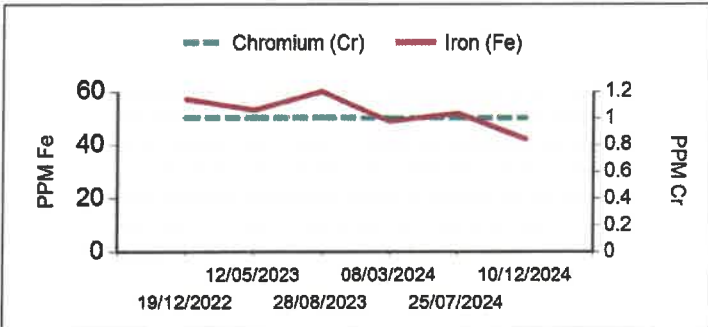
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08FF9B4

Gasoline Engine

Unit No. 2102

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD7NCNE1311

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity low for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	03-Dec-24	05-Aug-24	18-Apr-24	06-Dec-23	16-Aug-23	03-May-23
DATE RECEIVED	26-Dec-24	14-Aug-24	24-Apr-24	17-Jan-24	29-Aug-23	23-May-23
DATE REPORTED	27-Dec-24	15-Aug-24	25-Apr-24	19-Jan-24	30-Aug-23	26-May-23
LAB NO.	44023532480	44023415912	44023318074	44023229557	44023107507	44023023688
SIF NO.	704538857	705897544	702897570	702897528	701689909	701689966
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	17	26	9	21	15	15
Chromium (Cr)	1	1	<1	1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	1	<1	<1	<1	<1
Tin (Sn)	<1	<1	1	<1	<1	<1
Aluminium (Al)	10	10	6	14	4	14
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	6	4	7	5	5
Sodium (Na)	2	1	<1	<1	2	1
Potassium (K)	14	11	11	19	7	23
Additives (ppm)						
Magnesium (Mg)	114	396	416	684	815	671
Calcium (Ca)	1967	1676	1574	1138	1290	1134
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	849	807	759	615	746	646
Zinc (Zn)	989	952	896	713	880	742
Molybdenum (Mo)	3	5	6	3	4	3
Boron (B)	8	20	45	58	58	64
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.8	12.0	11.5	12.4	12.6	11.4
PQ Index	<10	<10	<10	<10	<10	<10



UIN 08FF9B4

U.S. Laboratories

Atlanta, Georgia - 420 **Valley View, Ohio - 410**
 5300 OakBrook Parkway 6180 Halle Dr. Suite D
 Building 200 Suite 245 Valley View, OH 44125
 Norcross, GA 30093 800.726.5400
 800.394.3669

Kansas City, Kansas - 430 **Phoenix, Arizona - 440**
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Portland, Oregon - 401

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Wellington

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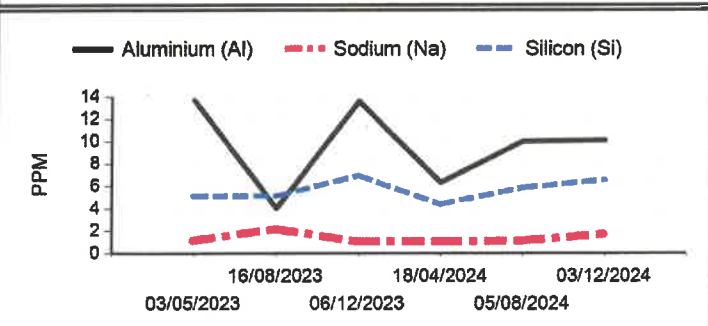
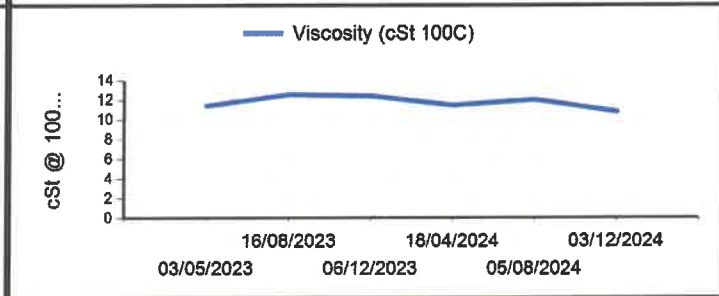
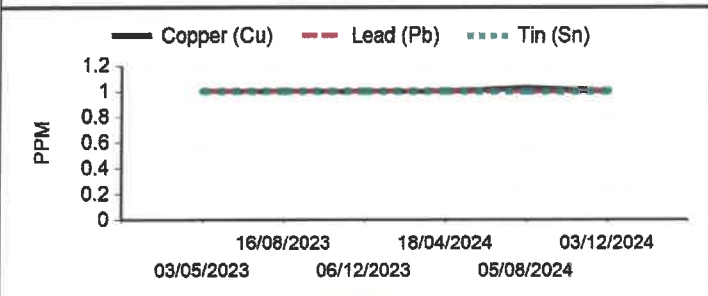
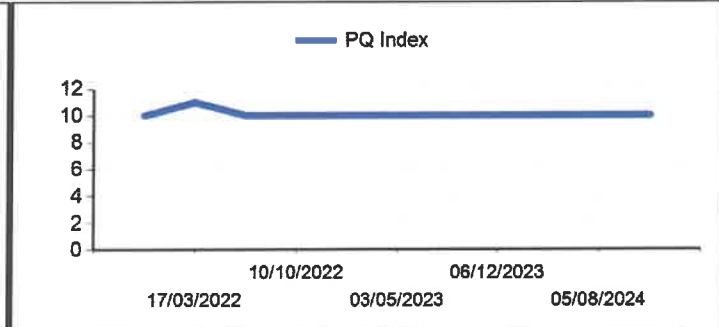
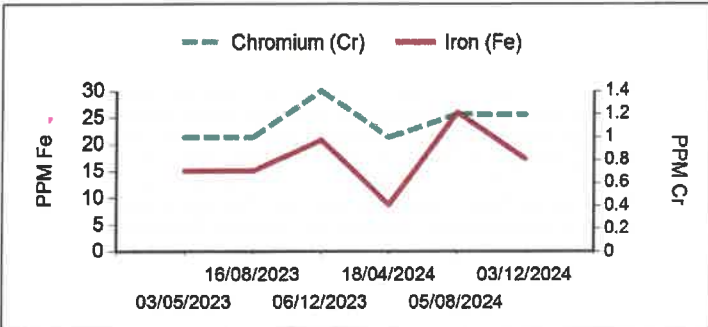
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08FF9B5

Transmission

Unit No. 2102

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRF7NCNE1311

Site

Compartment:
Name Transmission

Make
Model
Serial No.

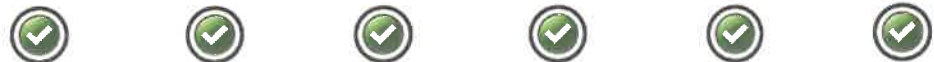
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	03-Dec-24	05-Aug-24	18-Apr-24	06-Dec-23	16-Aug-23	03-May-23
DATE RECEIVED	26-Dec-24	14-Aug-24	24-Apr-24	17-Jan-24	29-Aug-23	23-May-23
DATE REPORTED	26-Dec-24	15-Aug-24	25-Apr-24	19-Jan-24	30-Aug-23	26-May-23
LAB NO.	44023532481	44023415911	44023318075	44023229558	44023107508	44023023689
SIF NO.	704538856	702897543	702897569	702897527	701689908	701689967
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt 8.0	8.0			8.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Not Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	32	35	33	30	28	24
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	1	<1	<1	<1
Copper (Cu)	5	5	5	5	7	6
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	4	3	3	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	3	5	3	3
Sodium (Na)	1	<1	2	<1	1	1
Potassium (K)	<1	<1	1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	18	25	25	32	40	39
Calcium (Ca)	76	99	106	113	147	136
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	223	250	223	222	240	222
Zinc (Zn)	25	35	37	39	50	48
Molybdenum (Mo)	<1	<1	<1	<1	<1	1
Boron (B)	81	88	84	85	76	78
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.7	6.6	6.6	6.7	6.7	6.8
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	16	15	16	12	11	15



ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 08FF9B5

U.S. Laboratories

Atlanta, Georgia - 420
5300 OakBrook Parkway
Building 200 Suite 245
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6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440
3319 West Earl Drive
Phoenix, AZ 85017
800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
Portland, OR 97210
800.770.4128

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5036 South Service Rd.
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905 332 9559

Edmonton, Alberta - 402
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Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing

Houston, Texas

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Houston, TX 77099
877.835.8437

International Locations

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

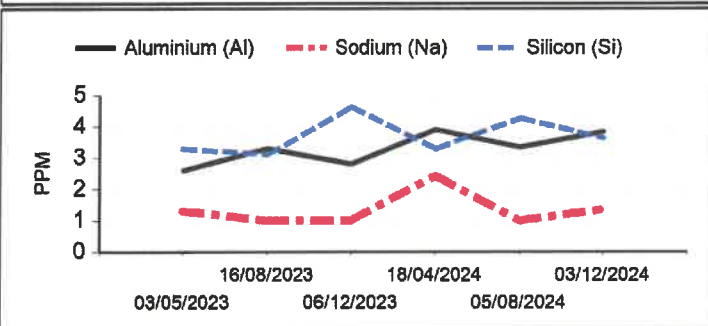
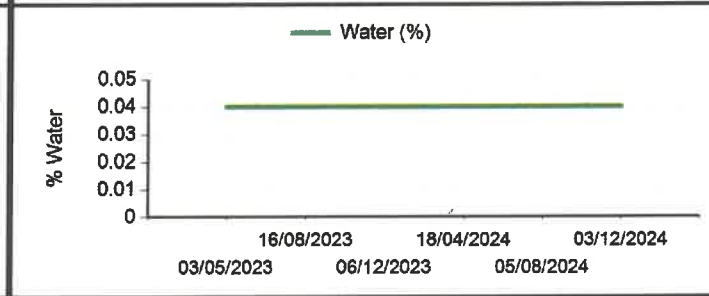
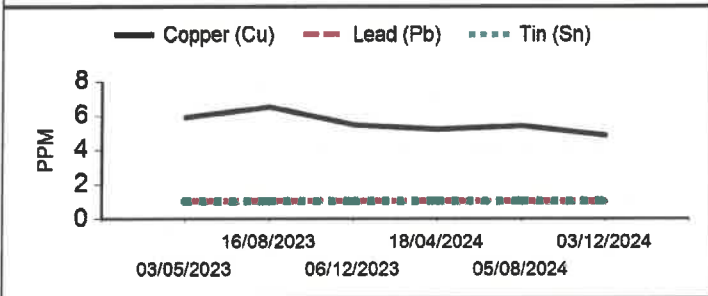
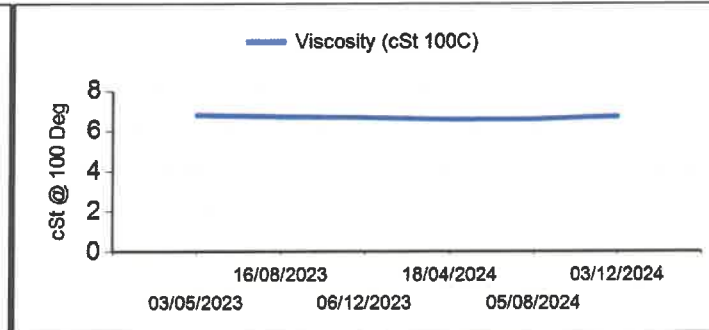
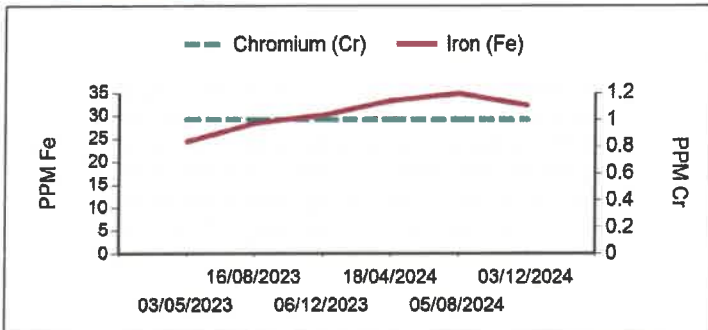
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 062683B

Transmission

Unit No. 1708

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4F58HDC36407

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 18.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	02-Dec-24	21-Aug-24	26-Apr-24	14-Nov-23	19-Jun-23	27-Jan-23
DATE RECEIVED	26-Dec-24	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	14-Feb-23
DATE REPORTED	26-Dec-24	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	16-Feb-23
LAB NO.	44023532485	44023441475	44023335665	44023195913	44023069485	44022938282
SIF NO.	704538860	704538879	702897563	701689952	701689988	700592838
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Dexron IV	Dexron IV	Dexron IV	Dexron IV	Dexron IV	Dexron IV
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt	6.0	6.0		6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Not Changed	Not Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	22	21	13	16	16	16
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	3	3	2	3	3	3
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	7	7	4	6	6	6
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	6	6	3	5	4
Sodium (Na)	<1	<1	<1	<1	<1	<1
Potassium (K)	<1	<1	<1	1	<1	<1
Additives (ppm)						
Magnesium (Mg)	2	1	3	3	3	3
Calcium (Ca)	129	126	129	124	143	133
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	190	193	199	193	186	204
Zinc (Zn)	8	5	6	8	10	5
Molybdenum (Mo)	<1	<1	1	1	1	<1
Boron (B)	68	64	71	63	74	77
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.7	5.7	5.9	5.8	6.0
Solids (%)	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Additional						
PQ Index	11	12	<10	<10	11	<10

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 062683B

U.S. Laboratories

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 5300 OakBrook Parkway
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International Locations

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand
 Wellington

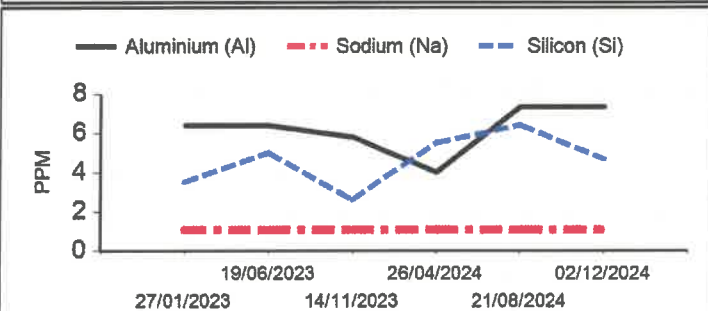
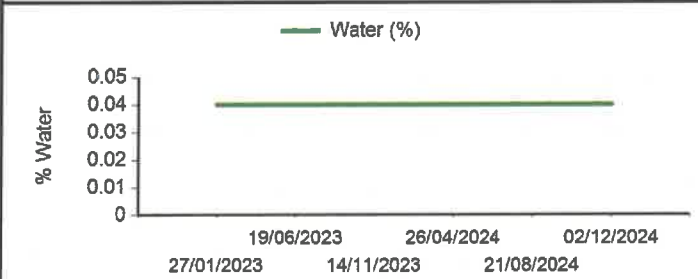
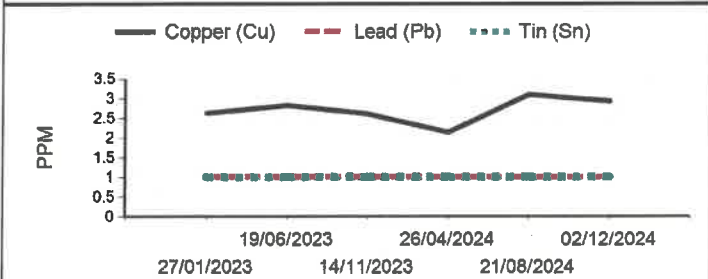
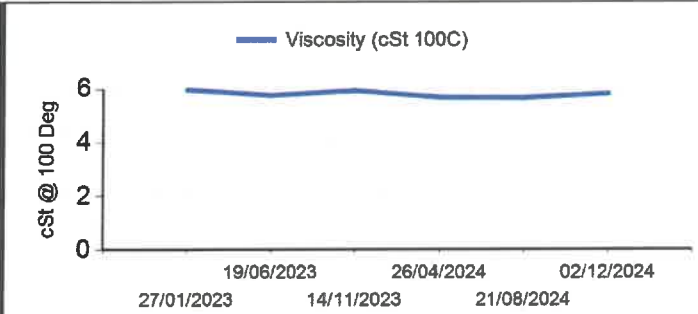
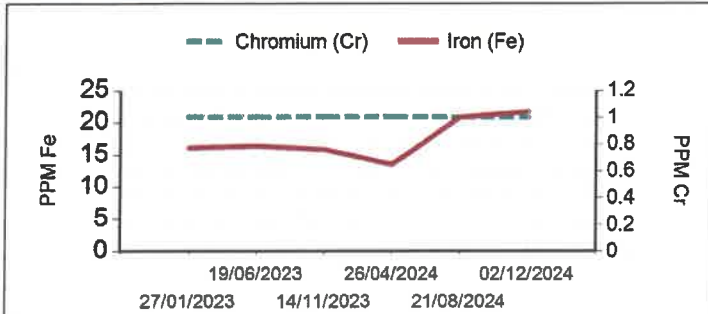
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 062683A

Gasoline Engine

Unit No. 1708

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F58HDC36407

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

	02-Dec-24	21-Aug-24	26-Apr-24	14-Nov-23	19-Jun-23	27-Jan-23
DATE SAMPLED	02-Dec-24	21-Aug-24	26-Apr-24	14-Nov-23	19-Jun-23	27-Jan-23
DATE RECEIVED	26-Dec-24	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	14-Feb-23
DATE REPORTED	27-Dec-24	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	16-Feb-23
LAB NO.	44023532484	44023441474	44023335664	44023195912	44023069484	44022938281
SIF NO.	704538859	704538878	702897564	701689953	701689989	700592837
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	34	20	15	13	24	23
Chromium (Cr)	2	<1	<1	<1	1	1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	9	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	6	4	2	3	4	3
Nickel (Ni)	2	2	1	<1	2	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	15	36	11	10	14	15
Sodium (Na)	21	13	4	5	2	4
Potassium (K)	3	5	2	3	1	<1
Additives (ppm)						
Magnesium (Mg)	517	503	530	543	508	543
Calcium (Ca)	1415	1424	1373	1311	1366	1486
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	726	749	741	737	719	780
Zinc (Zn)	888	925	849	871	852	950
Molybdenum (Mo)	308	297	288	273	289	327
Boron (B)	12	20	17	21	17	20
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.8	11.0	10.8	10.9	11.1	10.2
PQ Index	10	<10	<10	<10	<10	<10



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UIN 062683A

U.S. Laboratories

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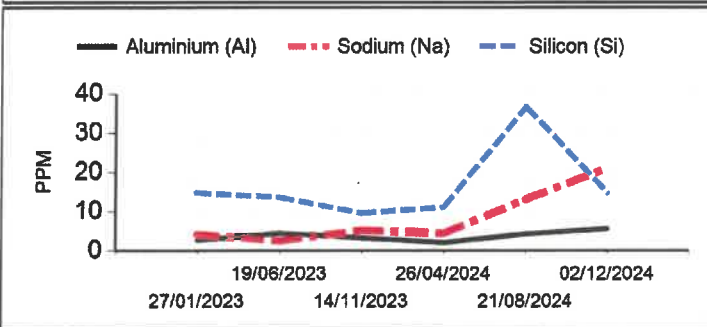
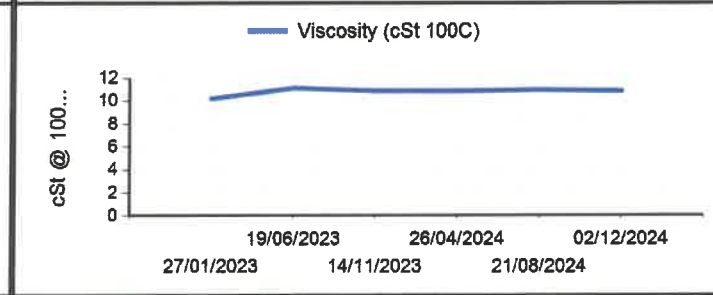
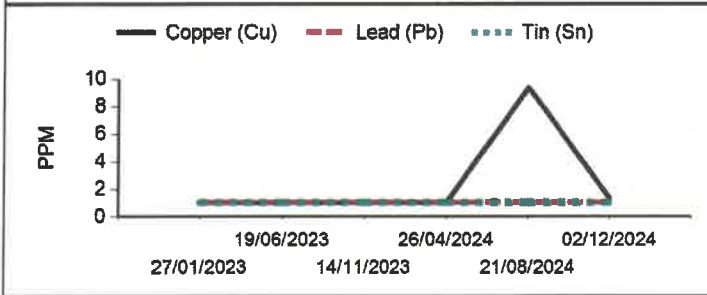
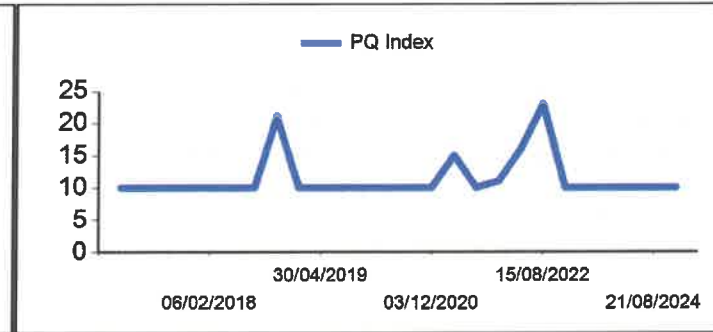
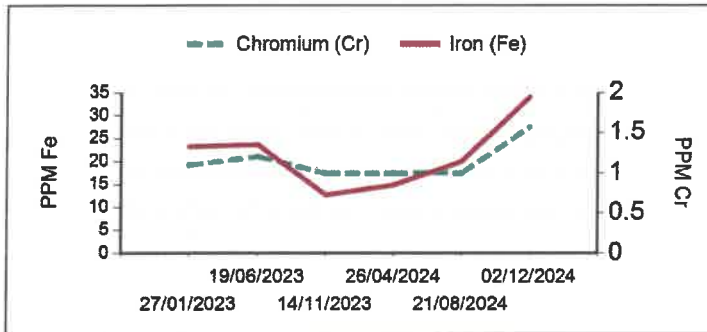
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046CE

Gasoline Engine

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	09-Jan-25	29-Aug-24	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23
DATE RECEIVED	11-Feb-25	12-Sep-24	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23
DATE REPORTED	12-Feb-25	13-Sep-24	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23

LAB NO.	44023571104	44023441478	44023318106	44023253080	44023069486	44022956866
SIF NO.	704538949	702897490	702897576	702897511	701689981	700592805
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	13	7	10	18	12	19
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	<1	1	4	2	4
Tin (Sn)	<1	<1	1	<1	<1	1
Aluminium (Al)	3	2	3	6	4	5
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	19	11	13	28	20	30
Sodium (Na)	14	6	2	8	<1	4
Potassium (K)	2	2	2	<1	<1	<1

Additives (ppm)						
Magnesium (Mg)	485	498	507	578	519	528
Calcium (Ca)	1311	1342	1413	1611	1423	1443
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	691	728	691	815	712	726
Zinc (Zn)	842	887	860	1038	830	867
Molybdenum (Mo)	294	309	298	329	305	306
Boron (B)	14	39	22	18	28	21

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.6	8.0	8.4	10.2	8.7	9.5
PQ Index	11	<10	11	<10	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 08046CE

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6180 Halle Dr. Suite D
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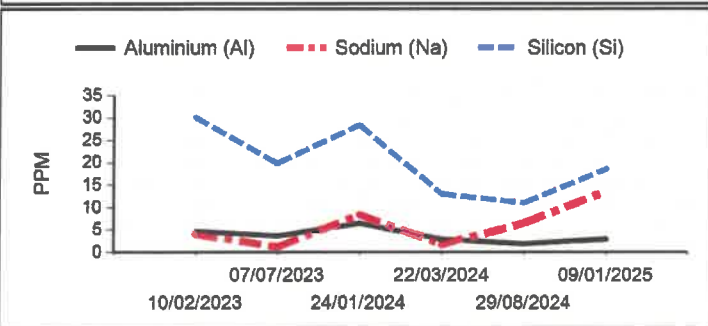
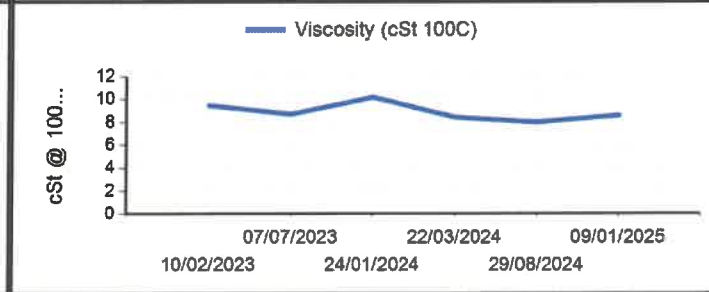
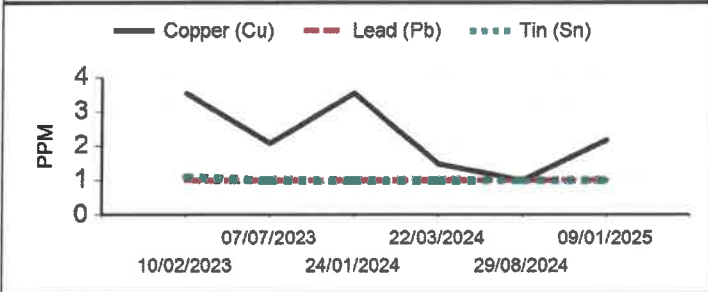
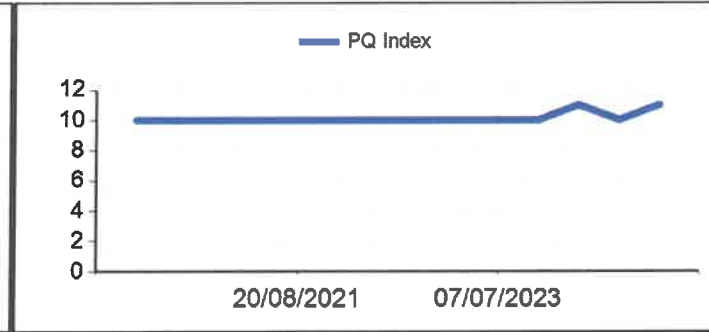
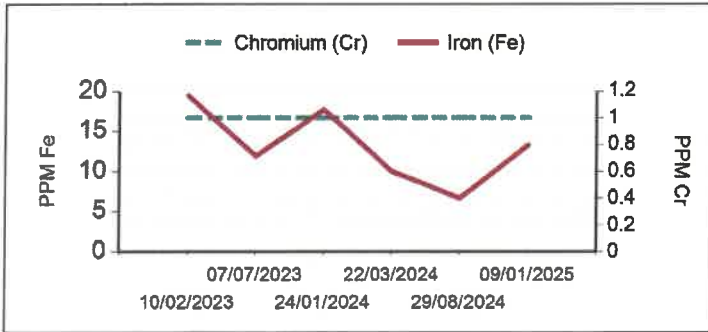
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- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0916D7A

Diesel Engine

Unit No. 2101

Unit:

Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:

PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	15-Nov-24	26-Jul-24	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23
DATE RECEIVED	25-Nov-24	14-Aug-24	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23
DATE REPORTED	26-Nov-24	15-Aug-24	25-Apr-24	11-Dec-23	24-Jun-23	10-Mar-23
LAB NO.	44023508251	44023415909	44023318104	44023195910	43021792841	44022956864
SIF NO.	704538906	702897548	702897578	701689959	701689894	700592806
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	12	12	9	9	11	18
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	2	6	3	4	12
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	5	2	5	8
Sodium (Na)	1	1	1	2	4	<1
Potassium (K)	3	3	14	6	2	23
Additives (ppm)						
Magnesium (Mg)	124	402	714	776	798	704
Calcium (Ca)	2120	1742	1248	1268	1418	1269
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	900	830	675	754	770	658
Zinc (Zn)	1066	986	807	841	908	750
Molybdenum (Mo)	3	5	10	3	4	3
Boron (B)	10	21	74	65	74	51
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.2	12.2	12.3	13.3	12.6	12.2
Fuel (%)	3.60	3.80	3.60	<1	1.70	3.20
PQ Index	<10	10	11	<10	<10	<10
Soot (%) Infrared D7844	0.2	0.2	0.2	0.2	0.2	0.3

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UIN 0916D7A

U.S. Laboratories

- | | |
|--|---|
| Atlanta, Georgia - 420
5300 OakBrook Parkway
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6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400 |
| Kansas City, Kansas - 430
936 Sunshine Road
Kansas City, KS 66115
800.332.8055 | Phoenix, Arizona - 440
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Phoenix, AZ 85017
800.445.7930 |
| Portland, Oregon - 401
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800.770.4128 | |

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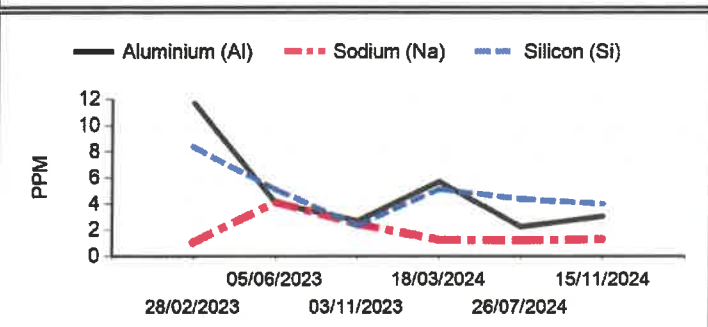
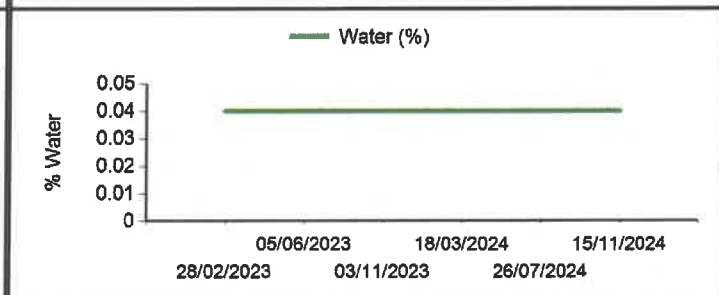
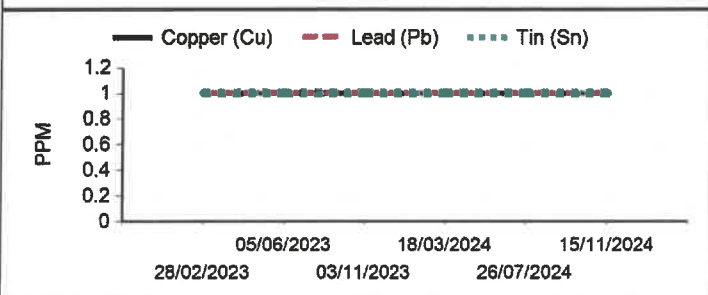
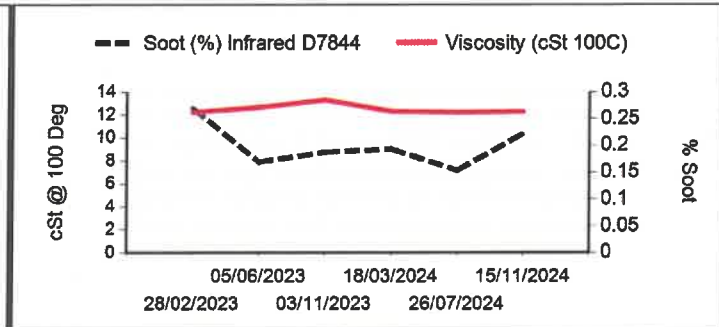
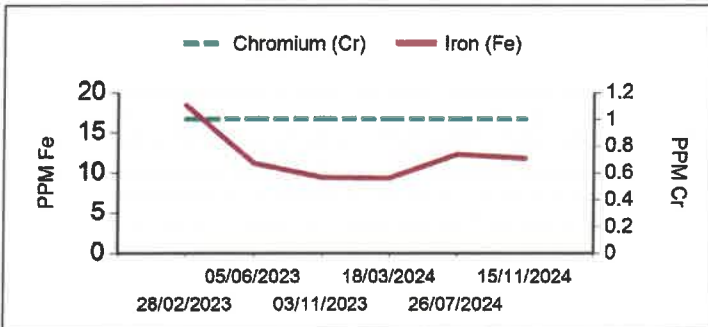
International Locations

- | | | | | |
|---|---|----------------------------------|--|-------------------------|
| Australia
Brisbane, Perth, Sydney, Muswellbrook | South America
Santiago de Chile, Belo Horizonte, Brazil | New Zealand
Wellington | Southeast Asia
Kuala Lumpur, Singapore | Europe
Prague |
|---|---|----------------------------------|--|-------------------------|

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0B02109

Transmission

Unit No. 2406

Unit:
Make
Model
Serial No.

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity: qt

Customer:

PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Oil type and/or fluid grade not given. Please provide missing oil information at next sample submission. Action: Change oil and filter(s) if not already done. Resample at a reduced service interval to monitor and establish wear trend.

Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their respective dates.

Table with 2 columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and their values.

Table with 2 columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with 2 columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with 2 columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with 2 columns: Contaminants and Water (%).

Table with 2 columns: Physical Tests and values for Viscosity (cSt 100C), Solids (%).

Table with 2 columns: Additional and PQ Index.



ANALYST: paul.kittrick

LEGEND section with icons for Abnormal, Severe, Abnormal, Caution, and Normal.

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UIN 0B02109

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International Locations

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New Zealand

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Southeast Asia

Kuala Lumpur, Singapore

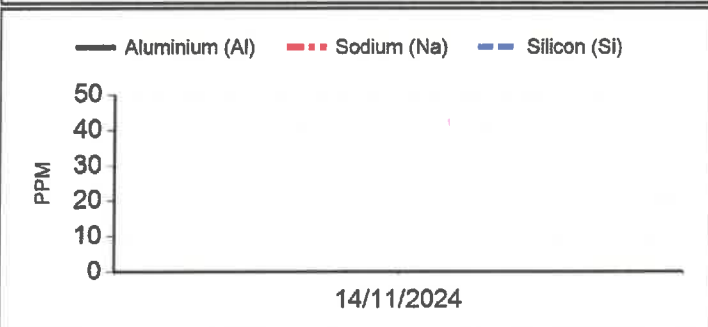
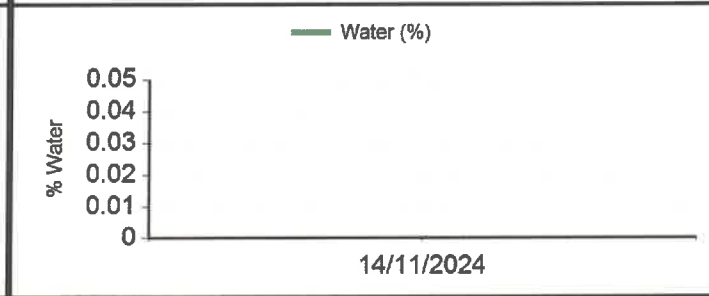
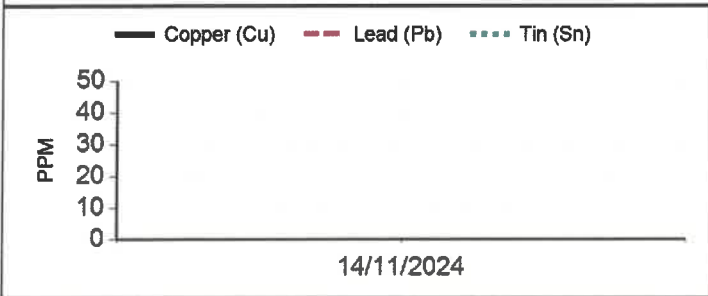
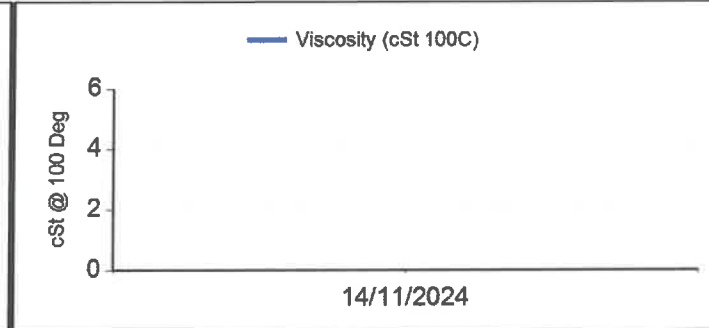
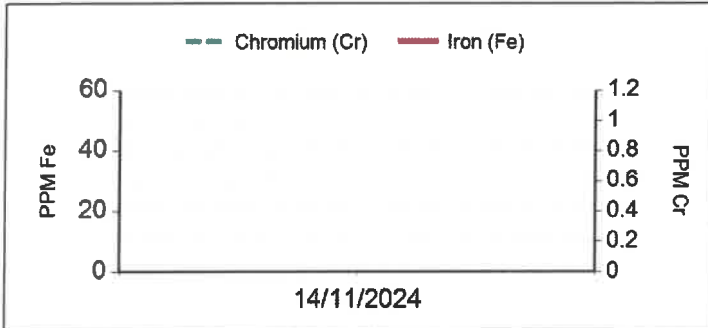
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0B02108

Gasoline Engine

Unit No. 2406

Unit:

Make

Model

Serial No.

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity:

Customer:

PARATRANSIT SERVICES

PO Box 698

Lower Lake Ca 95457

USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	14-Nov-24
DATE RECEIVED	25-Nov-24
DATE REPORTED	26-Nov-24

LAB NO.	44023508246
SIF NO.	704538914
TIME ON UNIT	mi
TIME ON OIL	mi
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	SAE 5W30
OIL ADDED	8.0
FILTER	mi
OIL CHANGED	Changed
WO NUMBER	

Metals (ppm)	
Iron (Fe)	18
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	4
Tin (Sn)	<1
Aluminium (Al)	3
Nickel (Ni)	3
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)	
Silicon (Si)	23
Sodium (Na)	9
Potassium (K)	4

Additives (ppm)	
Magnesium (Mg)	490
Calcium (Ca)	1359
Barium (Ba)	<1
Phosphorus (P)	733
Zinc (Zn)	886
Molybdenum (Mo)	302
Boron (B)	21

Contaminants	
Water (%)	<0.05
Coolant	No

Physical Tests	
Viscosity (cSt 100C)	9.9
PQ Index	12



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0B02108

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International Locations

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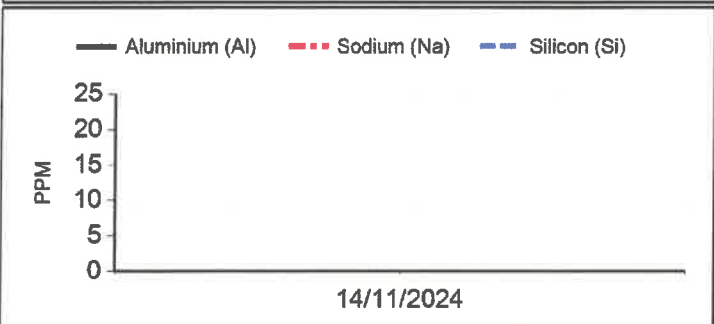
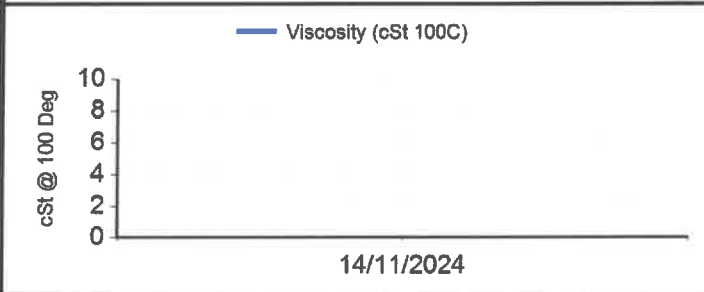
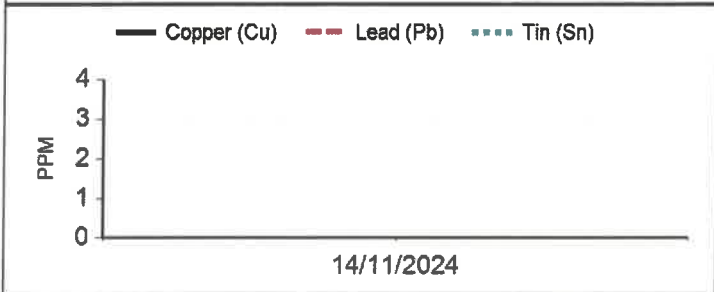
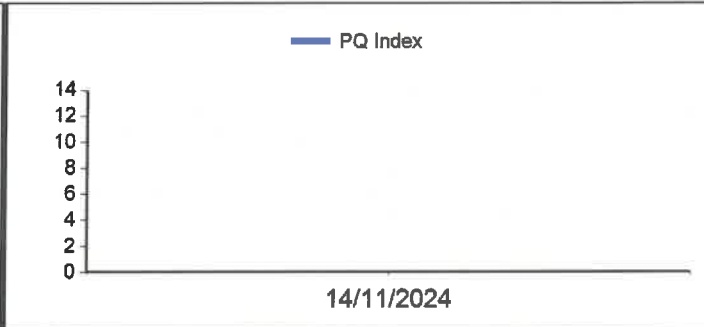
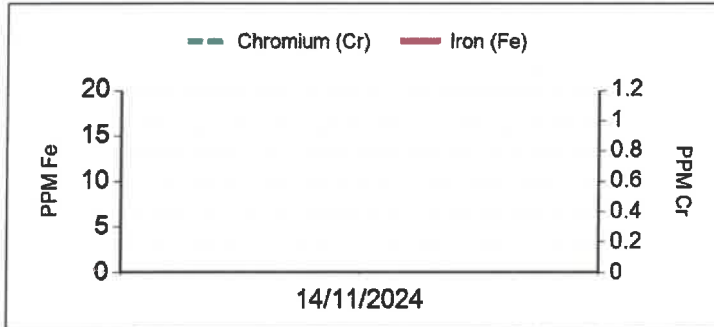
South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand **Southeast Asia** **Europe**
 Wellington Kuala Lumpur, Singapore Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 092B86F

Gasoline Engine

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFDONCNE1312

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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	13-Nov-24	31-Jul-24	11-Mar-24	30-Oct-23	11-Jul-23	01-Feb-23
DATE SAMPLED	13-Nov-24	31-Jul-24	11-Mar-24	30-Oct-23	11-Jul-23	01-Feb-23
DATE RECEIVED	25-Nov-24	14-Aug-24	25-Mar-24	08-Nov-23	29-Aug-23	14-Feb-23
DATE REPORTED	26-Nov-24	15-Aug-24	26-Mar-24	10-Nov-23	30-Aug-23	16-Feb-23
LAB NO.	44023508253	44023415907	44023289160	44023169869	44023107499	44022938406
SIF NO.	704538913	702897542	702897580	701689946	701689900	700592845
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	16	10	9	15	22	16
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	9	5	12	5	6	18
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	4	2	5	6	5
Sodium (Na)	1	<1	3	2	2	<1
Potassium (K)	7	5	22	7	9	35
Additives (ppm)						
Magnesium (Mg)	158	392	800	685	803	691
Calcium (Ca)	1986	1673	1337	1152	1297	1226
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	889	815	761	650	736	704
Zinc (Zn)	1027	954	876	735	865	799
Molybdenum (Mo)	3	5	11	3	3	3
Boron (B)	15	32	76	49	40	74
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.4	11.9	11.8	12.7	12.2	12.1
PQ Index	<10	<10	<10	<10	<10	<10



UIN 092B86F

U.S. Laboratories

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 800.770.4128

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International Locations

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

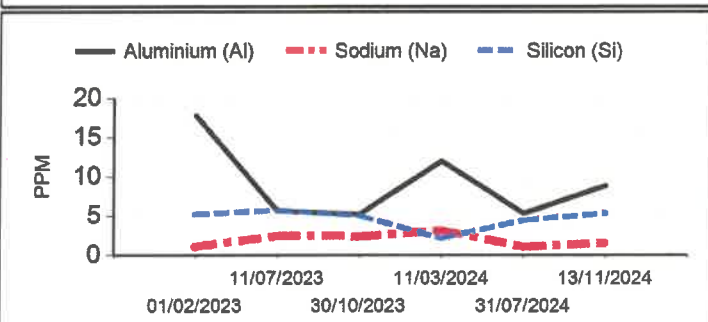
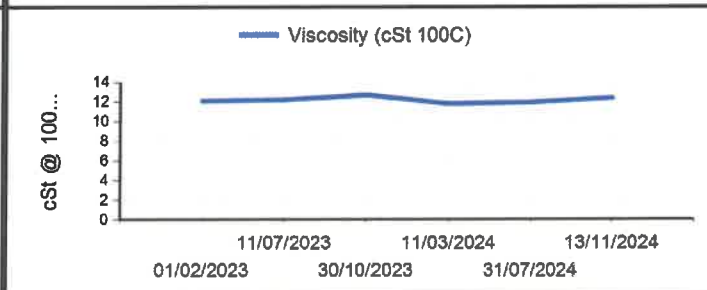
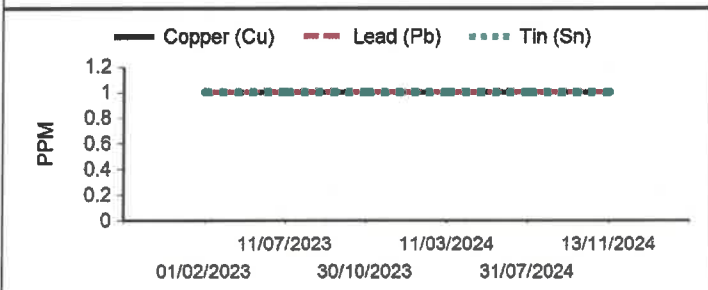
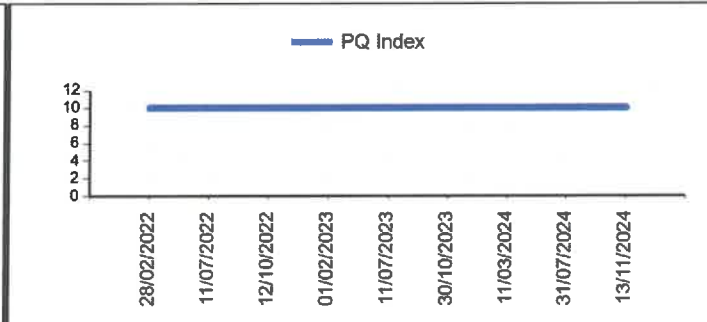
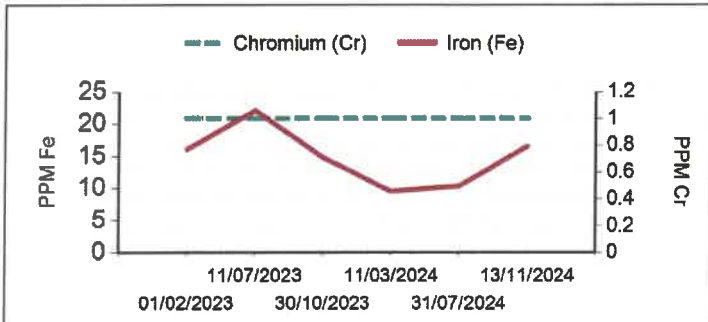
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 092B870

Transmission

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRF0NCNE1312

Site

Compartment:

Name Transmission
Make
Model
Serial No. 4UZADRF0NCNE1312
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	13-Nov-24	31-Jul-24	11-Mar-24	30-Oct-23	11-Jul-23	12-Oct-22
DATE RECEIVED	25-Nov-24	14-Aug-24	25-Mar-24	08-Nov-23	29-Aug-23	31-Oct-22
DATE REPORTED	26-Nov-24	15-Aug-24	26-Mar-24	10-Nov-23	30-Aug-23	02-Nov-22
LAB NO.	44023508247	44023415908	44023289190	44023169870	44023107500	44022856769
SIF NO.	704538912	702897541	702897579	701689947	701689901	700592858
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt		8.0	8.0	8.0	
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Changed	Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	34	29	30	36	39	38
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	2	3	3	6	10
Copper (Cu)	6	6	8	8	11	19
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	4	4	4	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	3	<1	3	4	4
Sodium (Na)	2	<1	2	2	2	6
Potassium (K)	<1	<1	<1	<1	2	3
Additives (ppm)						
Magnesium (Mg)	23	22	26	31	33	20
Calcium (Ca)	91	90	110	123	124	78
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	229	222	236	214	242	258
Zinc (Zn)	29	29	36	39	42	32
Molybdenum (Mo)	1	<1	<1	<1	<1	1
Boron (B)	80	77	74	75	80	89
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.6	6.6	6.7	6.7	6.7	6.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	18	37	14	14	14	12



ANALYST: Sam Smith Phoenix

LEGEND

Normal Severe Abnormal Caution Normal

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UIN 092B870

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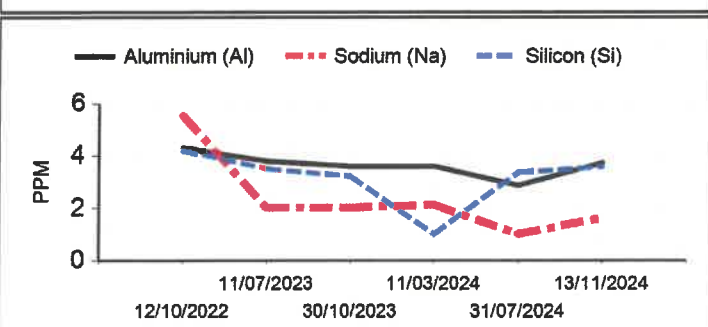
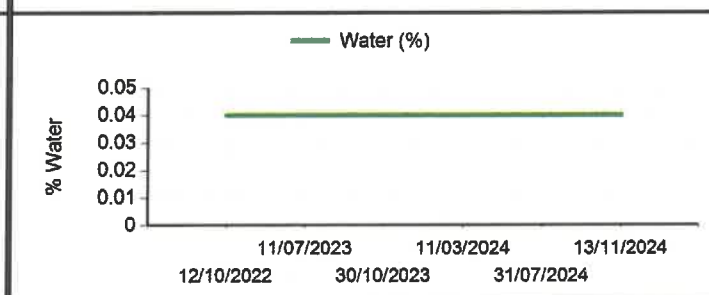
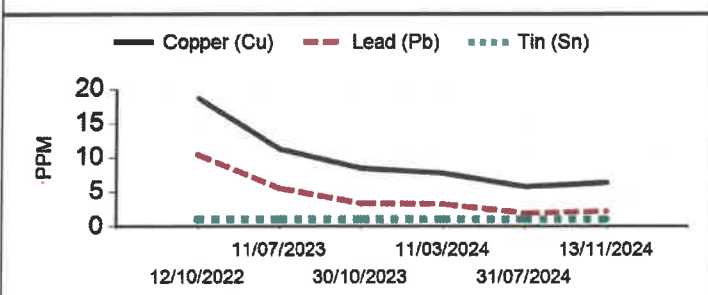
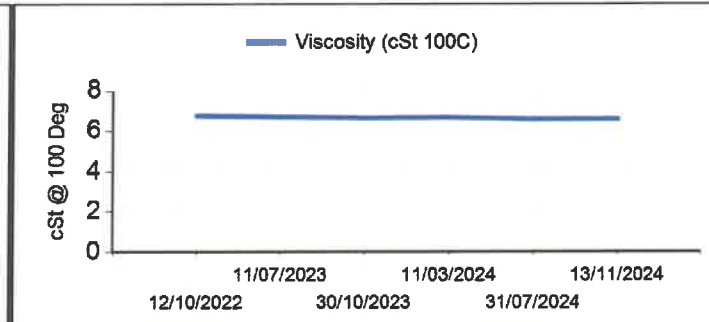
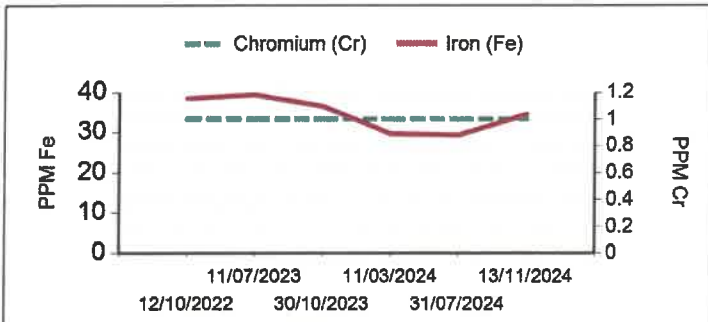
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD99EA

Transmission

Unit No. 2405

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FN4RDD38864

Site

Compartment:
Name Transmission
Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Oil type and/or fluid grade not given. Please provide missing oil information at next sample submission. Action: Check for any abnormal drive train noise/vibrations. Change oil and filter(s) if not already done. Resample at a reduced service interval to further monitor.

DATE SAMPLED	12-Nov-24	15-Aug-24
DATE RECEIVED	25-Nov-24	12-Sep-24
DATE REPORTED	27-Nov-24	13-Sep-24

LAB NO.	44023508248	44023441467
SIF NO.	704538911	704538881
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown
OIL ADDED	qt	6.0
FILTER	mi	
OIL CHANGED	Not Changed	Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	60	60
Chromium (Cr)	<1	<1
Lead (Pb)	2	2
Copper (Cu)	36	42
Tin (Sn)	3	2
Aluminium (Al)	67	62
Nickel (Ni)	3	4
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	8	8
Sodium (Na)	4	5
Potassium (K)	2	2

Additives (ppm)		
Magnesium (Mg)	2	7
Calcium (Ca)	121	128
Barium (Ba)	2	2
Phosphorus (P)	188	194
Zinc (Zn)	9	19
Molybdenum (Mo)	10	14
Boron (B)	64	64

Contaminants		
Water (%)	<0.05	<0.05

Physical Tests		
Viscosity (cSt 100C)	5.6	5.6
Solids (%)	<0.1	<0.1

Additional		
PQ Index	14	20



ANALYST: paul.kitrick

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

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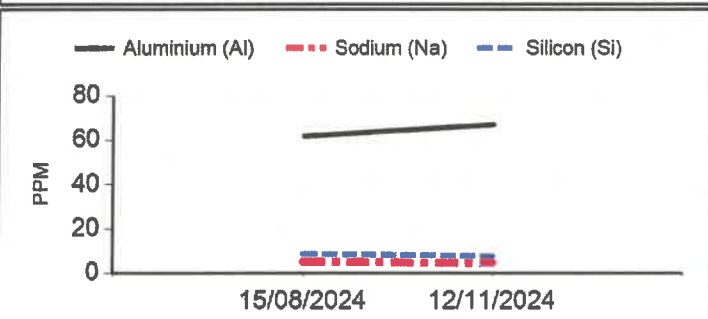
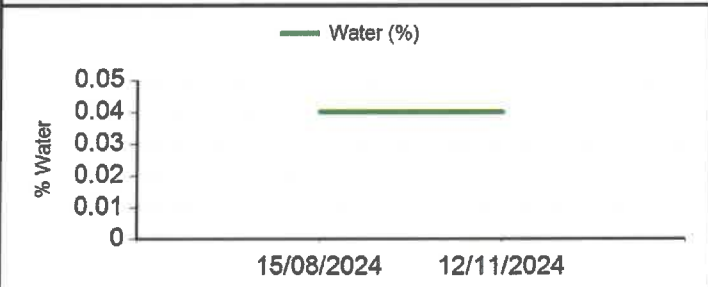
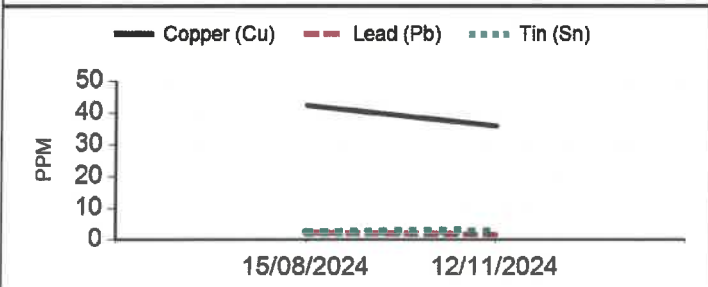
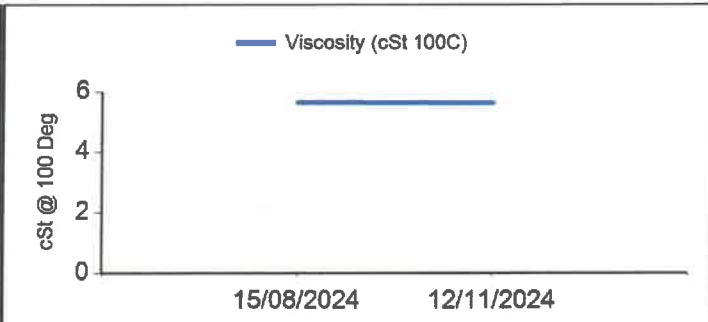
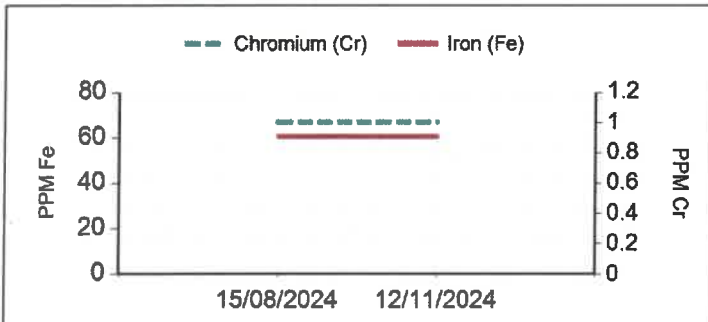
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD99E9

Gasoline Engine

Unit No. 2405

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FN4RDD38864

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	12-Nov-24	15-Aug-24
DATE RECEIVED	25-Nov-24	12-Sep-24
DATE REPORTED	26-Nov-24	13-Sep-24

LAB NO.	44023508254	44023441466
SIF NO.	704538910	704538880
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30
OIL ADDED	qt	8.0
FILTER	mi	
OIL CHANGED	Changed	Changed
WO NUMBER		

Metals (ppm)

Iron (Fe)	11	13
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	2	4
Tin (Sn)	<1	<1
Aluminium (Al)	2	3
Nickel (Ni)	<1	1
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)

Silicon (Si)	20	24
Sodium (Na)	11	13
Potassium (K)	2	3

Additives (ppm)

Magnesium (Mg)	518	554
Calcium (Ca)	1369	1410
Barium (Ba)	<1	<1
Phosphorus (P)	731	762
Zinc (Zn)	889	951
Molybdenum (Mo)	303	311
Boron (B)	18	20

Contaminants

Water (%)	<0.05	<0.05
Coolant	No	No

Physical Tests

Viscosity (cSt 100C)	10.7	11.2
PQ Index	10	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AD99E9

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Wellington

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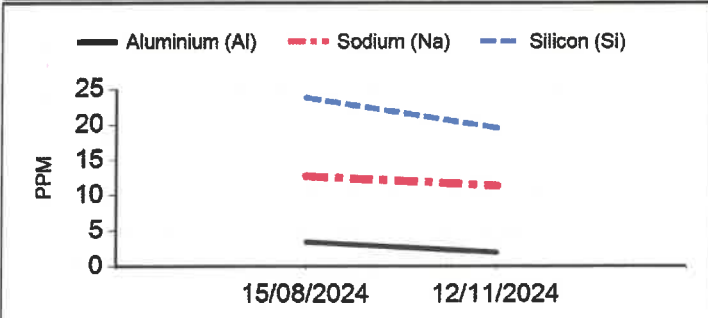
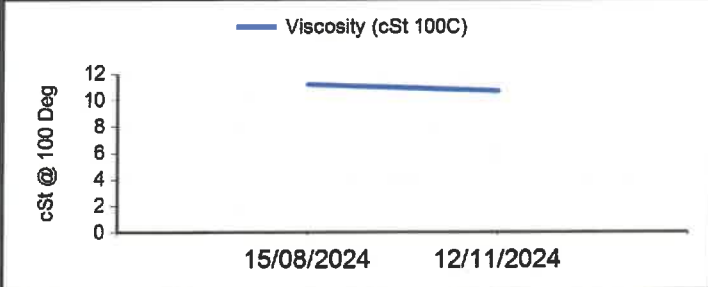
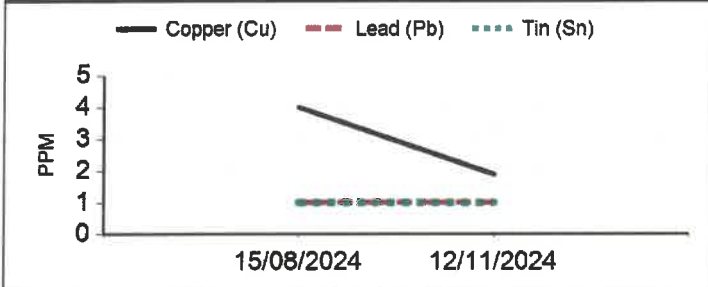
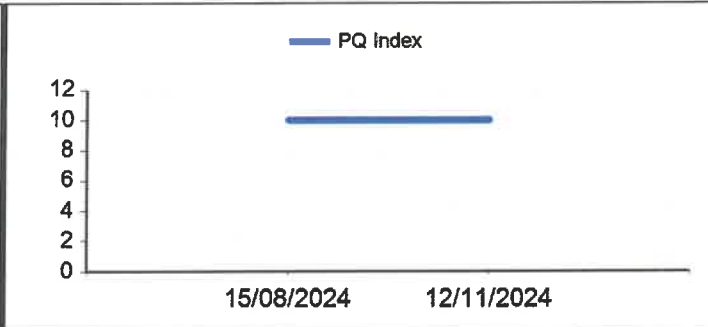
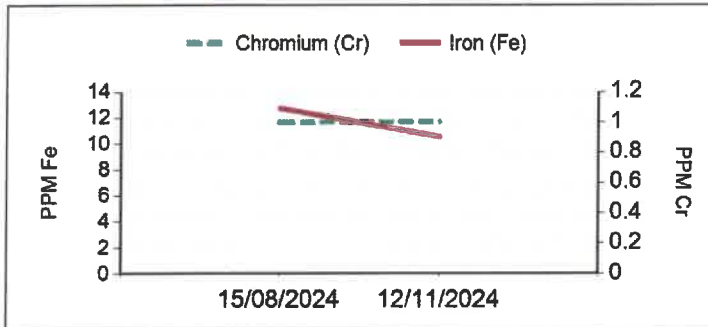
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD9A12

Transmission

Unit No. 2402

Unit:
Make Ford
Model E-450
Serial No. 1DFDE4FN5RDD39215

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: Resample next service interval to further monitor.

DATE SAMPLED	08-Nov-24	21-Aug-24
DATE RECEIVED	25-Nov-24	12-Sep-24
DATE REPORTED	26-Nov-24	13-Sep-24

LAB NO.	44023508250	44023441483
SIF NO.	704538909	702897497
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown
OIL ADDED	qt	
FILTER	mi	
OIL CHANGED	Not Changed	Not Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	32	53
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	22	42
Tin (Sn)	<1	1
Aluminium (Al)	23	34
Nickel (Ni)	2	4
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	5	7
Sodium (Na)	2	4
Potassium (K)	1	2

Additives (ppm)		
Magnesium (Mg)	1	1
Calcium (Ca)	114	118
Barium (Ba)	<1	2
Phosphorus (P)	199	191
Zinc (Zn)	4	5
Molybdenum (Mo)	7	14
Boron (B)	80	66

Contaminants		
Water (%)	<0.05	<0.05

Physical Tests		
Viscosity (cSt 100C)	5.7	5.7
Solids (%)	<0.1	<0.1

Additional		
PQ Index	17	18

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AD9A12

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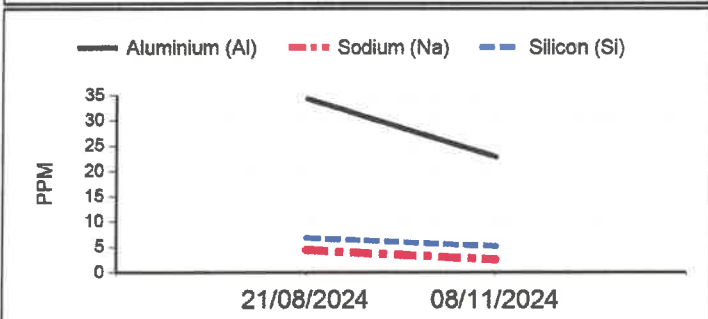
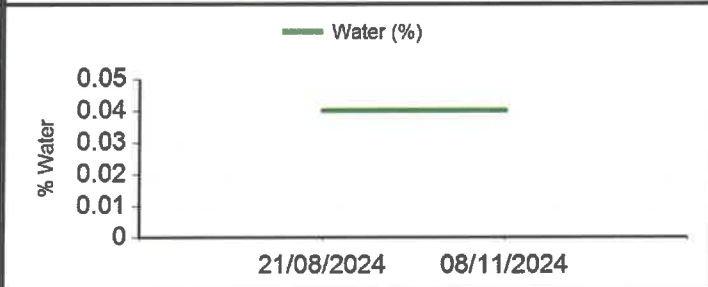
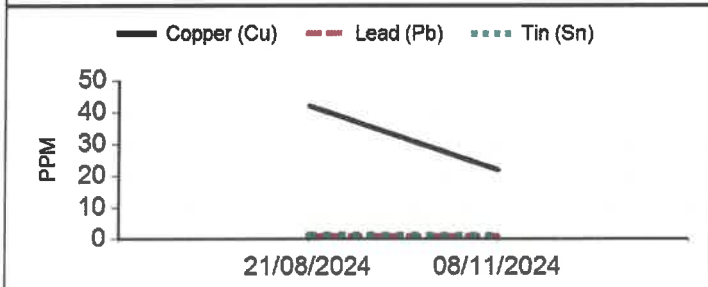
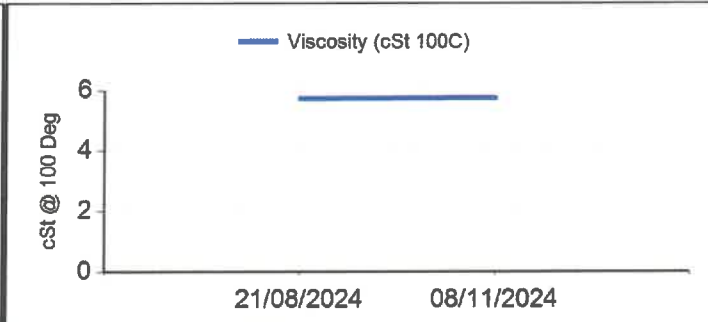
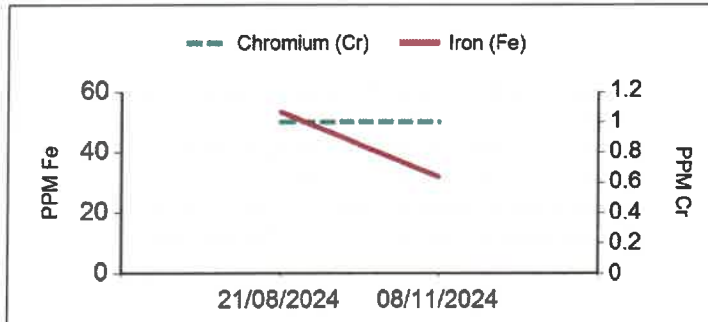
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD9A11

Gasoline Engine

Unit No. 2402

Unit: Ford
Make: E-450
Model: 1FDFE4FN5RDD39215
Serial No.

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

Legend box with icons for Normal, Severe, Abnormal, Caution, and Normal.

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Table with columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and values for 08-Nov-24, 25-Nov-24, 26-Nov-24, 21-Aug-24, 12-Sep-24, 13-Sep-24.

Table with columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and values for 44023508255, 704538908, 44023441482, 702897498, Unidentified, Unidentified, SAE 5W30, SAE 5W30, 8.0, 8.0, Changed, Changed.

Table with columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with columns: Contaminants and values for Water (%), Coolant.

Table with columns: Physical Tests and values for Viscosity (cSt 100C), PQ Index.





UIN 0AD9A11

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Atlanta, Georgia - 420
 5300 OakBrook Parkway
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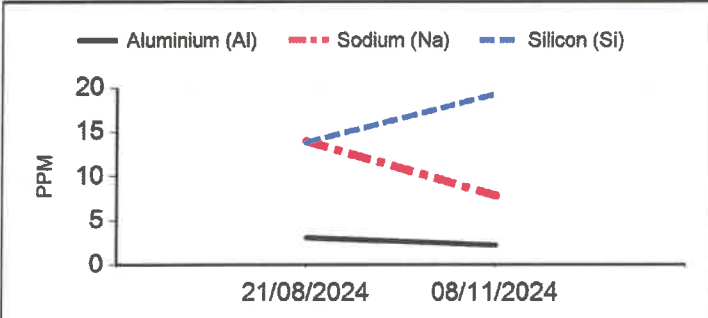
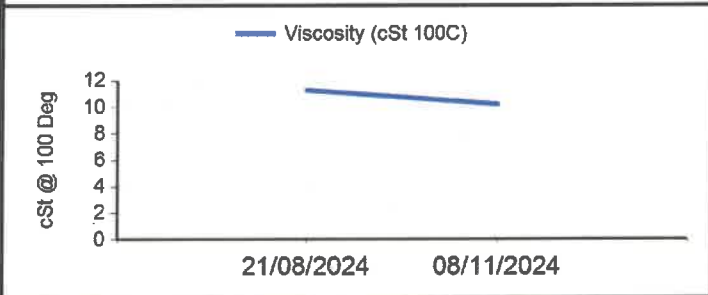
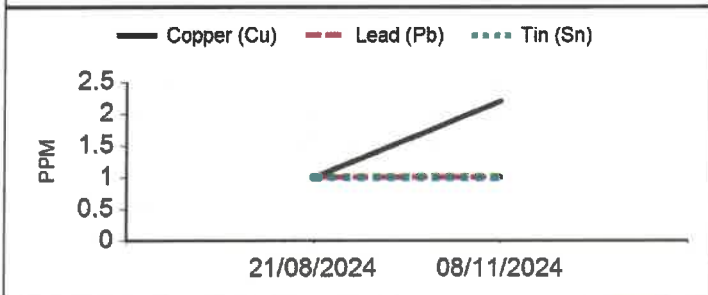
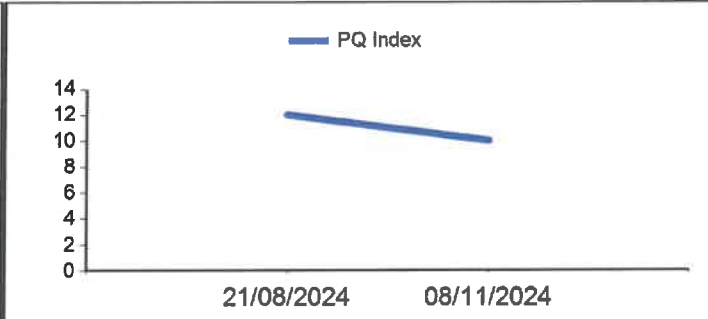
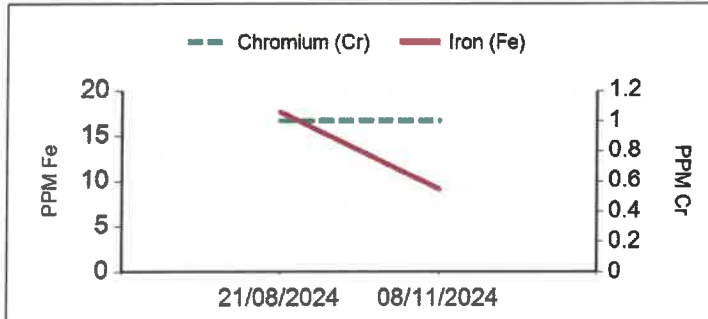
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07D2D8C

Gasoline Engine

Unit No. 1906

Unit:
Make Ford
Model Transit
Serial No. 1FDES8PM0KKB17068

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

	17-Dec-24	22-Aug-24	01-May-24	05-Jul-23	24-Jan-23	18-Oct-22
DATE SAMPLED	17-Dec-24	22-Aug-24	01-May-24	05-Jul-23	24-Jan-23	18-Oct-22
DATE RECEIVED	26-Dec-24	12-Sep-24	15-May-24	14-Jul-23	01-Feb-23	31-Oct-22
DATE REPORTED	26-Dec-24	13-Sep-24	16-May-24	18-Jul-23	03-Feb-23	02-Nov-22
LAB NO.	44023532486	44023441480	44023335666	44023069482	44022929706	44022856764
SIF NO.	704538862	702897491	702897562	701689983	700592808	700592847
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	15	11	15	17	19	29
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	1	2	3	7	58
Tin (Sn)	<1	<1	<1	<1	<1	2
Aluminium (Al)	3	4	3	5	7	13
Nickel (Ni)	<1	1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	18	19	26	35	24	154
Sodium (Na)	15	11	4	<1	2	26
Potassium (K)	2	2	<1	1	2	24
Additives (ppm)						
Magnesium (Mg)	498	509	486	503	470	540
Calcium (Ca)	1315	1386	1403	1369	1211	1073
Barium (Ba)	<1	<1	<1	<1	<1	11
Phosphorus (P)	702	729	724	707	706	719
Zinc (Zn)	848	897	848	824	849	833
Molybdenum (Mo)	296	312	288	295	148	105
Boron (B)	17	21	17	24	21	51
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.3	8.5	8.5	8.6	8.5	8.4
PQ Index	10	10	<10	<10	<10	<10

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UIN 07D2D8C

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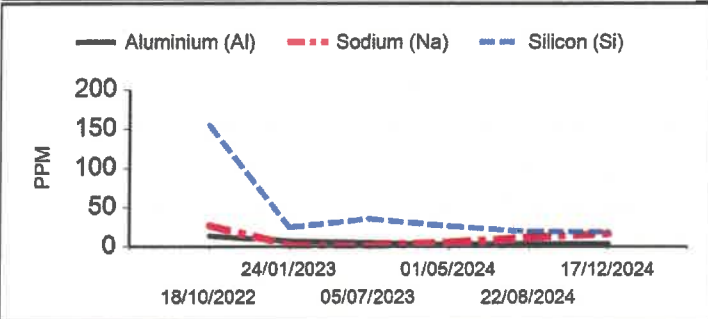
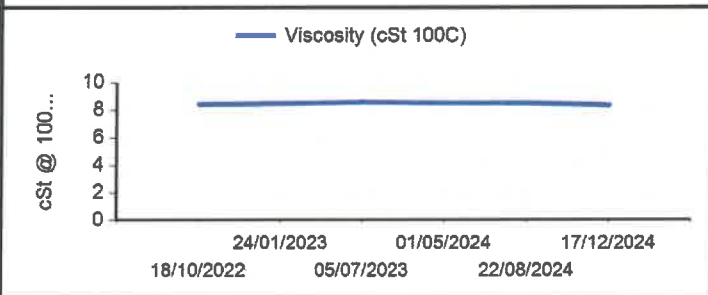
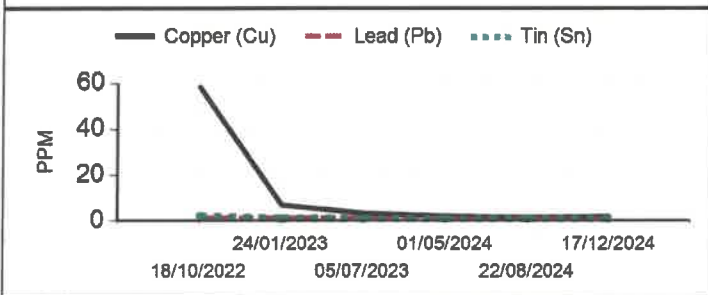
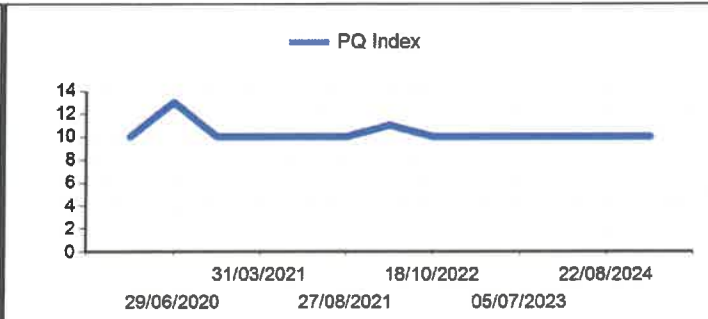
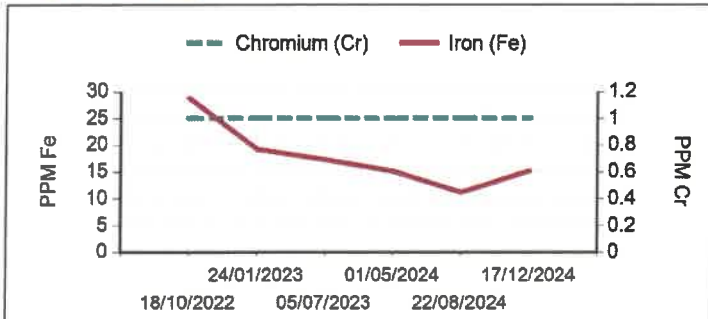
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0AC42CE

Gasoline Engine

Unit No. 2404

Unit:
Make Ford
Model E-450
Serial No. 1FDEFE4FN6RDD39191

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 8.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	07-Nov-24	25-Jun-24
DATE RECEIVED	15-Nov-24	31-Jul-24
DATE REPORTED	15-Nov-24	02-Aug-24

LAB NO.	44023499351	44023403750
SIF NO.	704538926	702897505
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30
OIL ADDED	qt	8.0
FILTER	mi	
OIL CHANGED	Changed	Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	6	7
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	<1	2
Tin (Sn)	<1	<1
Aluminium (Al)	<1	2
Nickel (Ni)	<1	1
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	13	17
Sodium (Na)	4	5
Potassium (K)	1	1

Additives (ppm)		
Magnesium (Mg)	495	546
Calcium (Ca)	1305	1375
Barium (Ba)	<1	<1
Phosphorus (P)	719	675
Zinc (Zn)	899	877
Molybdenum (Mo)	305	290
Boron (B)	38	32

Contaminants		
Water (%)	<0.05	<0.05
Coolant	No	No

Physical Tests		
Viscosity (cSt 100C)	10.0	10.4
PQ Index	11	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42CE

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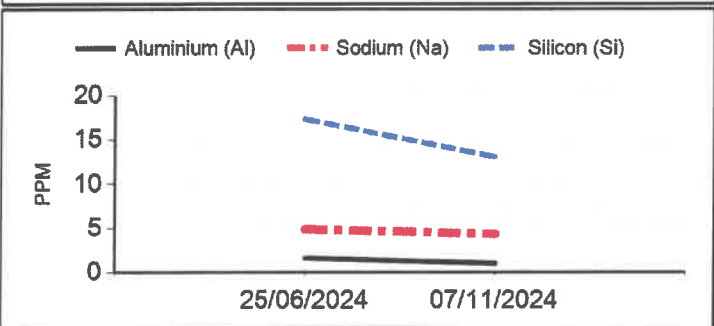
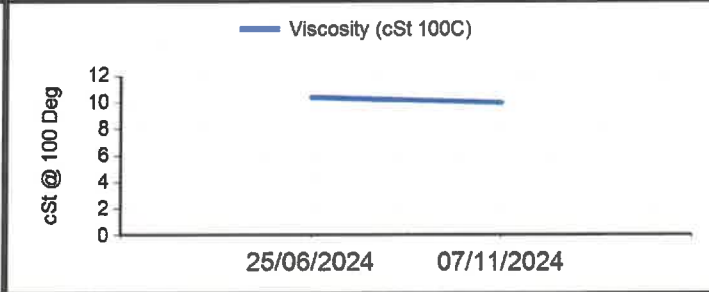
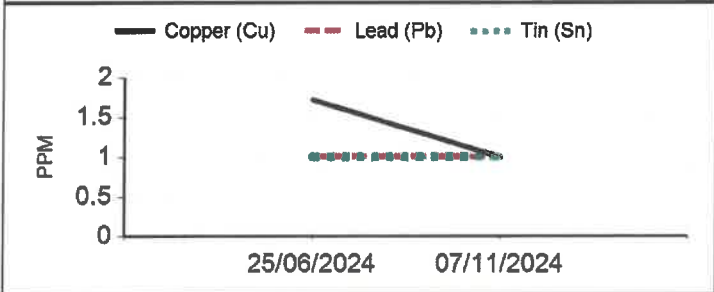
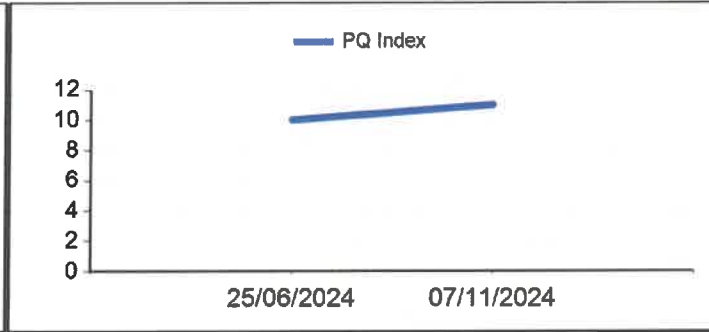
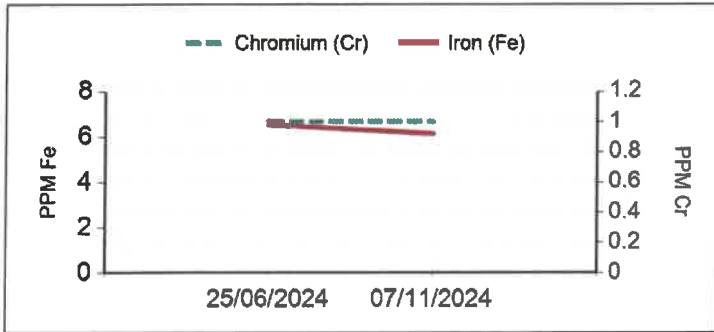
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42CF

Transmission

Unit No. 2404

Unit:
Make Ford
Model E-450
Serial No. 1FDEFE4FN6RDD39191

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Elevated aluminum possibly due to housing, piston or torque converter wear. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Recommend checking if stall speed is normal. Resample at a reduced service interval to further monitor.

DATE SAMPLED	07-Nov-24	25-Jun-24
DATE RECEIVED	15-Nov-24	31-Jul-24
DATE REPORTED	15-Nov-24	02-Aug-24

LAB NO.	44023499352	44023403751
SIF NO.	704538927	702897506
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown
OIL ADDED	qt	
FILTER	mi	
OIL CHANGED	Not Changed	Not Changed
WO NUMBER		

Metals (ppm)

Iron (Fe)	54	29
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	44	19
Tin (Sn)	3	1
Aluminium (Al)	61	28
Nickel (Ni)	4	2
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)

Silicon (Si)	9	8
Sodium (Na)	4	3
Potassium (K)	1	<1

Additives (ppm)

Magnesium (Mg)	1	1
Calcium (Ca)	122	127
Barium (Ba)	1	<1
Phosphorus (P)	195	191
Zinc (Zn)	6	5
Molybdenum (Mo)	15	6
Boron (B)	68	69

Contaminants

Water (%)	<0.05	<0.05
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Physical Tests

Viscosity (cSt 100C)	5.7	5.8
Solids (%)	<0.1	0.1

Additional

PQ Index	14	14
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ANALYST: roldan.beldad

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

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UIN 0AC42CF

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Southeast Asia

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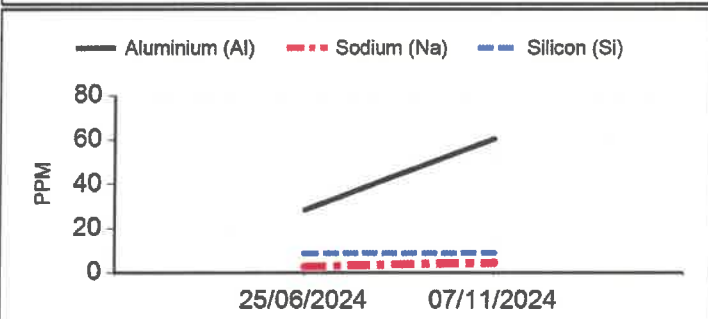
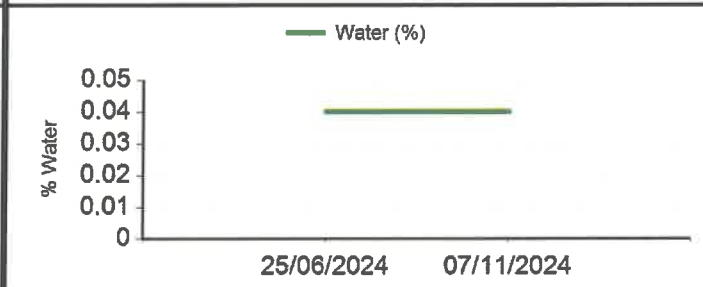
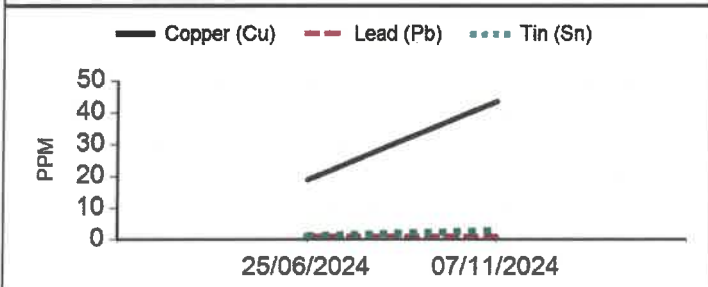
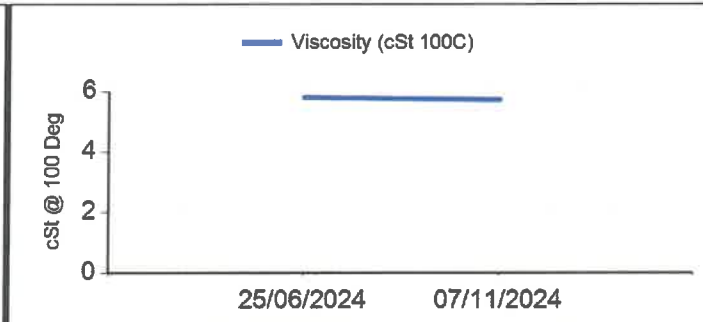
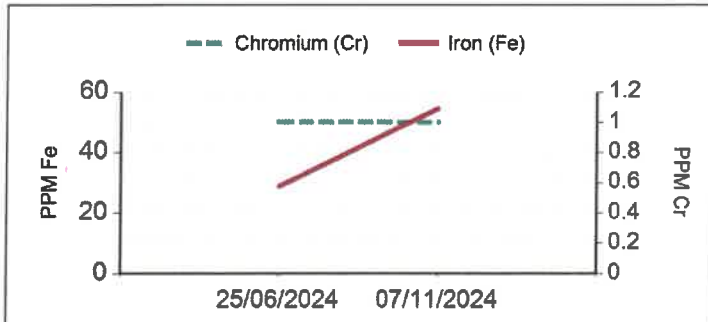
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.





UIN 0AC42C4

Gasoline Engine

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FNXRDD38867

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	04-Nov-24	30-Aug-24	12-Jul-24
DATE RECEIVED	14-Nov-24	11-Oct-24	31-Jul-24
DATE REPORTED	15-Nov-24	12-Oct-24	02-Aug-24

LAB NO.	44023498369	44023468884	44023403748
SIF NO.	704538931	704538868	702897508
TIME ON UNIT	mi		
TIME ON OIL	mi		
OIL BRAND	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	8.0		8.0
FILTER	mi		
OIL CHANGED	Changed	Changed	Changed
WO NUMBER			

Metals (ppm)

Iron (Fe)	11	10	16
Chromium (Cr)	<1	<1	<1
Lead (Pb)	<1	<1	<1
Copper (Cu)	2	3	12
Tin (Sn)	<1	<1	<1
Aluminium (Al)	2	3	4
Nickel (Ni)	<1	<1	1
Silver (Ag)	<1	<1	<1
Titanium (Ti)	<1	<1	<1
Vanadium (V)	<1	<1	<1

Contaminants (ppm)

Silicon (Si)	17	18	30
Sodium (Na)	11	13	7
Potassium (K)	2	3	3

Additives (ppm)

Magnesium (Mg)	501	491	517
Calcium (Ca)	1343	1310	1429
Barium (Ba)	<1	<1	<1
Phosphorus (P)	728	697	702
Zinc (Zn)	871	852	904
Molybdenum (Mo)	300	290	259
Boron (B)	18	21	36

Contaminants

Water (%)	<0.05	<0.05	<0.05
Coolant	No	No	No

Physical Tests

Viscosity (cSt 100C)	9.4	10.5	10.3
PQ Index	<10	<10	<10



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Valley View, OH 44125
800.726.5400
- Kansas City, Kansas - 430**
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800.332.8055
- Phoenix, Arizona - 440**
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- Portland, Oregon - 401**
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800.770.4128

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Sales & Marketing

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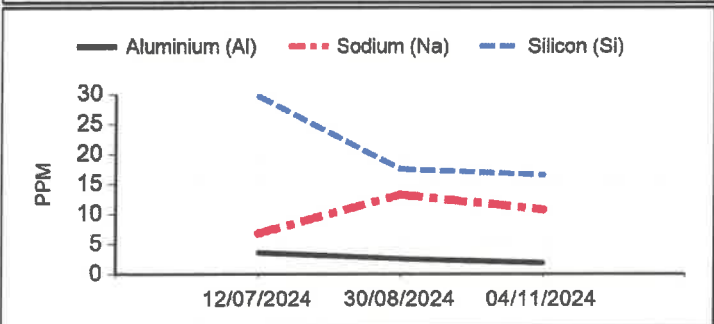
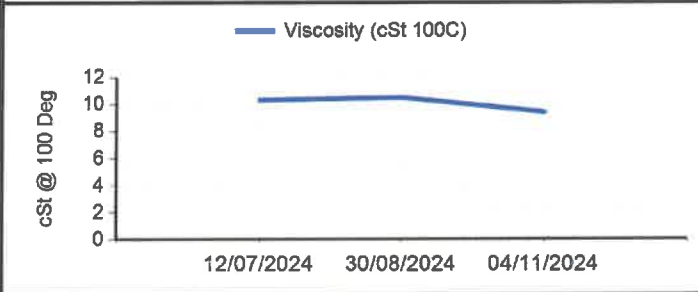
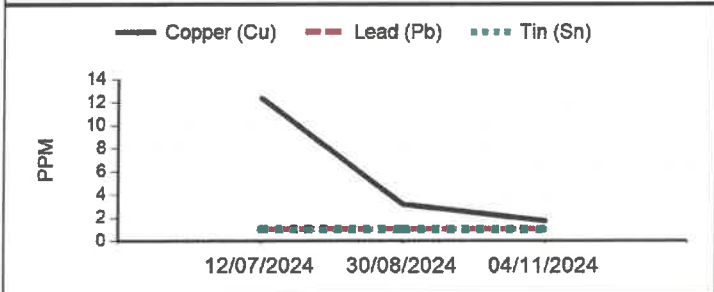
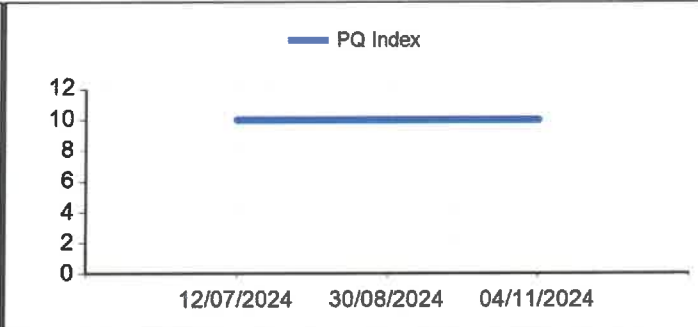
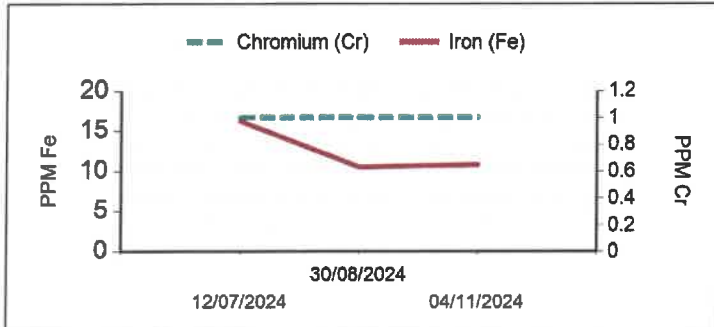
International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.



0002 v1.9



UIN 0AC42C5

Transmission

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FNXRDD38867

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Elevated aluminum possibly due to housing, piston or torque converter wear. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

DATE SAMPLED	04-Nov-24	30-Aug-24	12-Jul-24
DATE RECEIVED	14-Nov-24	11-Oct-24	31-Jul-24
DATE REPORTED	15-Nov-24	12-Oct-24	02-Aug-24

LAB NO.	44023498370	44023468885	44023403754
SIF NO.	7045388930	704538869	702897507
TIME ON UNIT	mi		
TIME ON OIL	mi		
OIL BRAND	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown
OIL ADDED	6.0		
FILTER	mi		
OIL CHANGED	Changed	Not Changed	Not Changed
WO NUMBER			

Metals (ppm)			
Iron (Fe)	60	42	34
Chromium (Cr)	<1	<1	<1
Lead (Pb)	1	<1	<1
Copper (Cu)	44	35	36
Tin (Sn)	2	1	<1
Aluminium (Al)	39	24	15
Nickel (Ni)	4	3	3
Silver (Ag)	<1	<1	<1
Titanium (Ti)	<1	<1	<1
Vanadium (V)	<1	<1	<1

Contaminants (ppm)			
Silicon (Si)	7	6	6
Sodium (Na)	4	4	5
Potassium (K)	2	2	1

Additives (ppm)			
Magnesium (Mg)	2	2	1
Calcium (Ca)	118	118	122
Barium (Ba)	1	1	1
Phosphorus (P)	192	188	185
Zinc (Zn)	6	6	4
Molybdenum (Mo)	14	12	13
Boron (B)	69	69	71

Contaminants			
Water (%)	<0.05	<0.05	<0.05

Physical Tests			
Viscosity (cSt 100C)	5.7	5.7	5.7
Solids (%)	<0.1	<0.1	0.1

Additional			
PQ Index	17	14	13

ANALYST: roldan.beldad

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

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UIN 0AC42C5

U.S. Laboratories

- | | |
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 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400</p> |
| <p>Kansas City, Kansas - 430
 935 Sunshine Road
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 800.332.8055</p> | <p>Phoenix, Arizona - 440
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 800.445.7930</p> |
| <p>Portland, Oregon - 401
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 800.770.4128</p> | |

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- | | |
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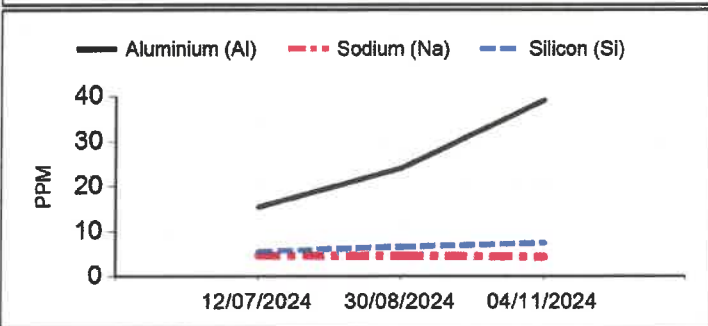
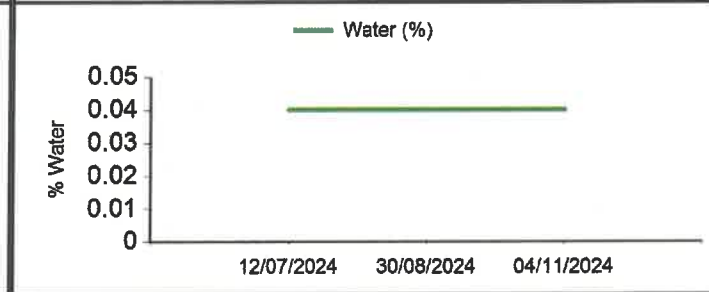
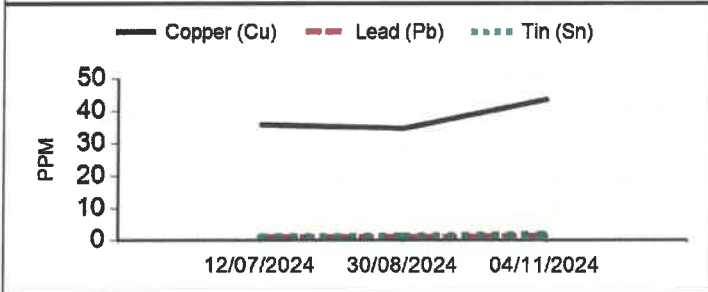
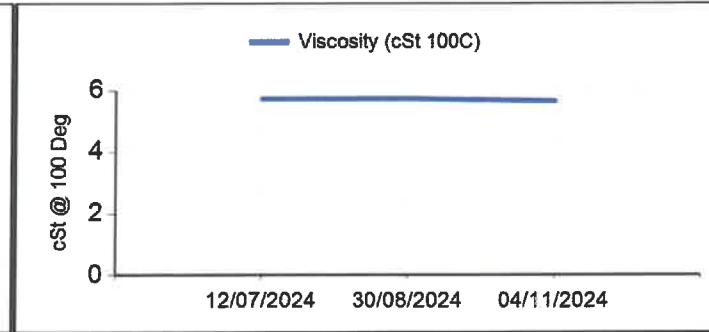
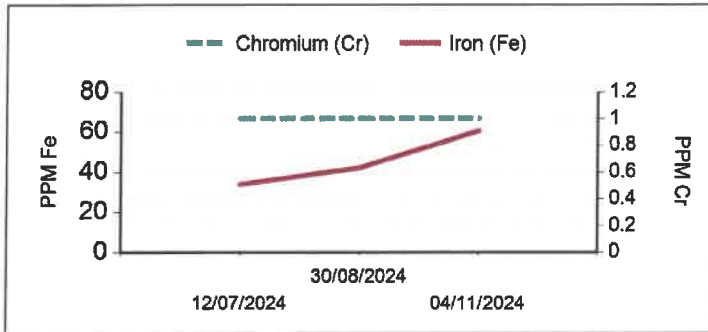
International Locations

- | | | |
|---|-------------------------|---------------|
| Australia | | |
| Brisbane, Perth, Sydney, Muswellbrook | | |
| South America | | |
| Santiago de Chile, Belo Horizonte, Brazil | | |
| New Zealand | Southeast Asia | Europe |
| Wellington | Kuala Lumpur, Singapore | Prague |

TEST METHODS:

- | | |
|------------------------------|------------------------------|
| Acid Number: | ASTM D974/D664 (*M) |
| Base Number: | ASTM D4739 (*M) |
| Base Number (Perchloric): | ASTM D2896B, back (*M) |
| Fuel Dilution by GC: | ASTM D7593 |
| Fuel Dilution Visc/Setaflash | In House |
| Fuel Soot ATR/IR: | ASTM D7686 (*M) |
| Soot by FTIR: | ASTM D7844 |
| Glycol: | In House |
| Metals by ICP AES: | ASTM D5185 (*M) |
| Ox, NOx, SOx, FTIR: | ASTM E2412/D7418/D7414 D7415 |
| PQ Index: | ASTM D8120 (*M) |
| Particle Count: | ASTM D7647 (*M) / ISO 4406 |
| Kinematic Viscosity: | ASTM D445 (*M) / D7279 (*M) |
| Water KF: | D6304 / E203 (*M) |
| Water Crackle: | In House |

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AFC731

Transmission

Unit No. 2403

Unit:
Make Ford
Model E-450
Serial No. 1FD FE4FN5RDD39182

Site

Compartment:

Name Transmission

Make
Model
Serial No.

Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, Resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their corresponding dates (01-Nov-24, 15-Nov-24, 15-Nov-24).

Table with 2 columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and their corresponding values.

Table with 2 columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with 2 columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with 2 columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with 2 columns: Contaminants and Water (%).

Table with 2 columns: Physical Tests and values for Viscosity (cSt 100C), Solids (%).

Table with 2 columns: Additional and PQ Index.



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal, Severe, Abnormal, Caution, and Normal.

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UIN 0AFC731

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

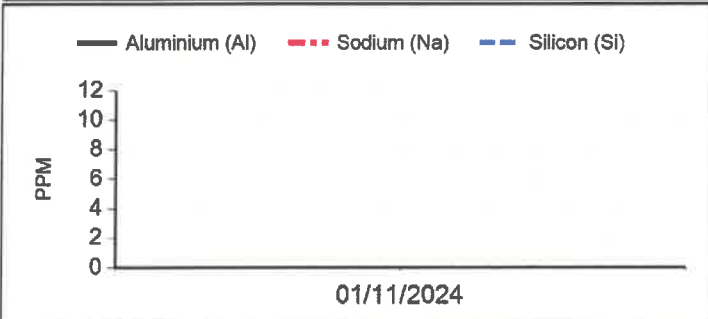
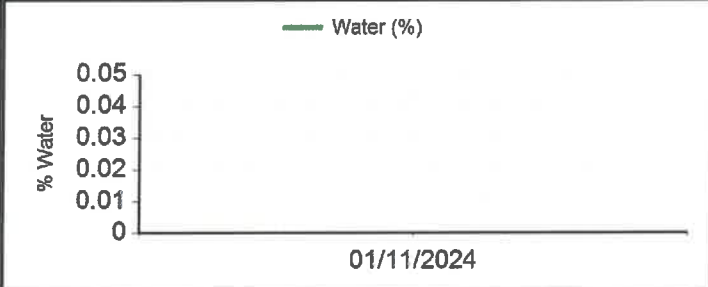
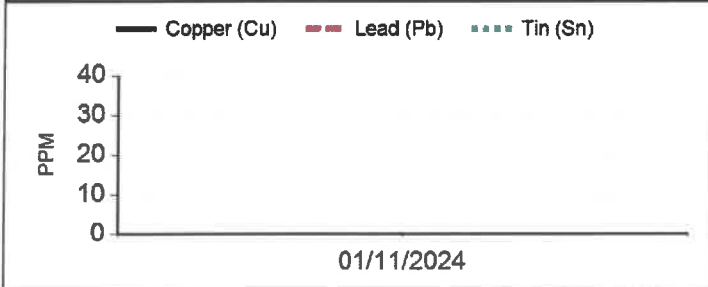
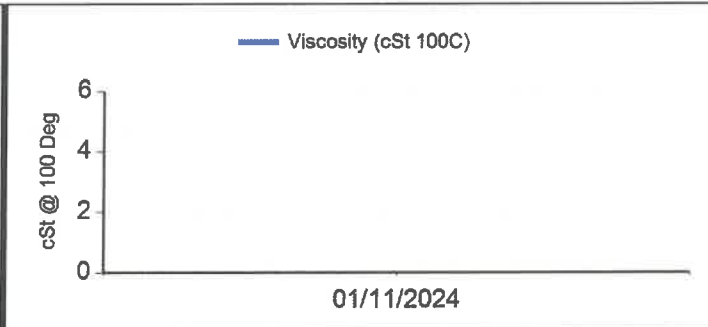
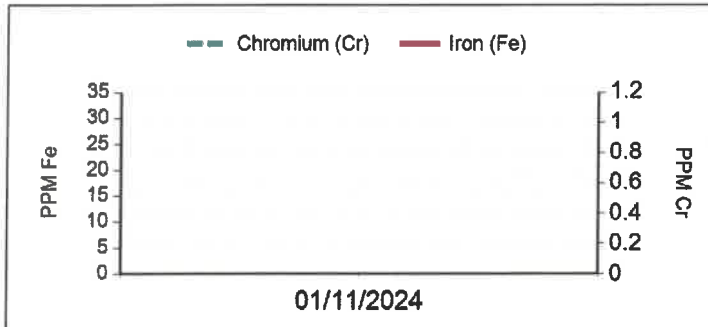
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash:	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.





UIN 0AFC730

Gasoline Engine

Unit No. 2403

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4FN5RDD39182

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 8.0 qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their corresponding dates (01-Nov-24, 15-Nov-24, 15-Nov-24).

Table with 2 columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and their corresponding values.

Table with 2 columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with 2 columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with 2 columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with 2 columns: Contaminants and values for Water (%), Coolant.

Table with 2 columns: Physical Tests and values for Viscosity (cSt 100C), PQ Index.



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal, Severe, Abnormal, Caution, and Normal.

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UIN 0AFC730

U.S. Laboratories

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Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430 935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440 3319 West Earl Drive
Phoenix, AZ 85017
800.445.7930

Portland, Oregon - 401

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800.770.4128

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International Locations

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

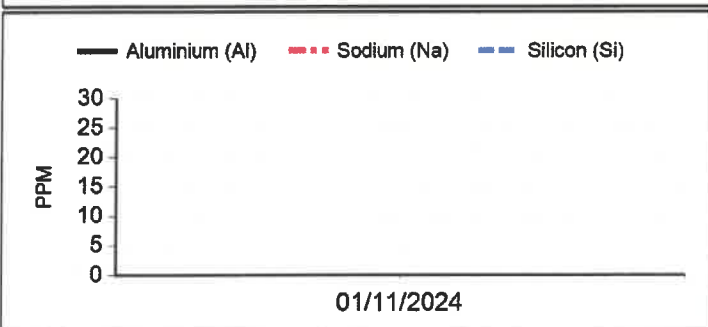
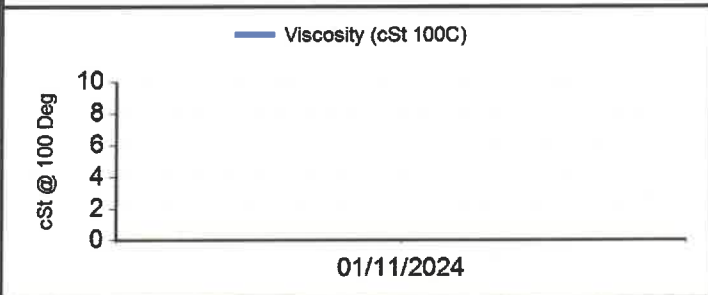
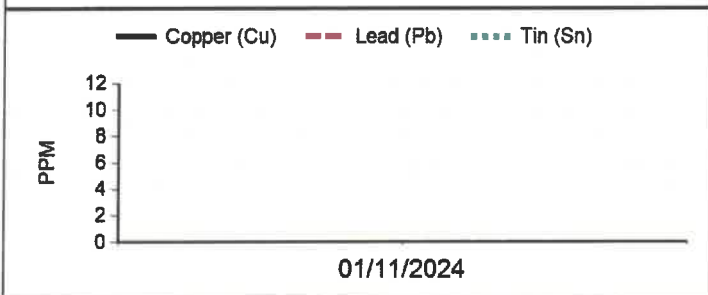
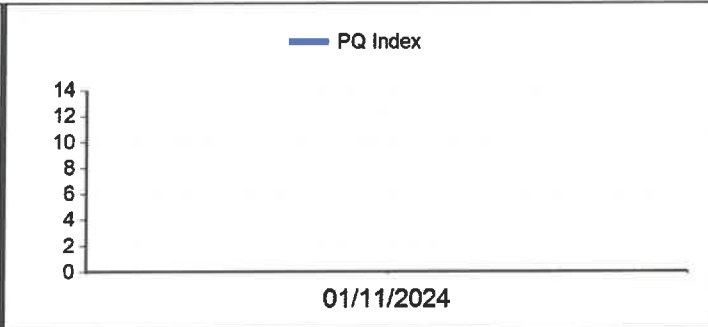
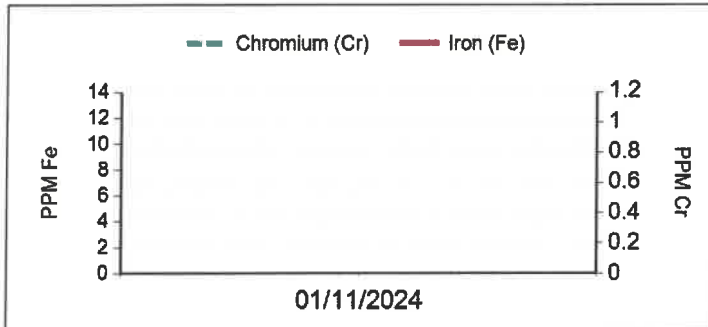
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.



0002 v1.9



UIN 055406A

Diesel Engine

Unit No. 1502

Unit:
Make Freightliner
Model
Serial No. 4U2AD1RDU6GCHK9539

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	31-Oct-24	01-Dec-23	10-Aug-23	30-Mar-22	09-Dec-21	03-Aug-21
DATE RECEIVED	14-Nov-24	08-Dec-23	29-Aug-23	04-May-22	26-Jan-22	25-Aug-21
DATE REPORTED	15-Nov-24	11-Dec-23	30-Aug-23	05-May-22	29-Jan-22	27-Aug-21
LAB NO.	44023498373	44023195908	44023107503	44022722124	44022647166	44022543885
SIF NO.	704538934	701689954	701689907	39776154	39776229	38635075
TIME ON UNIT	mi					
TIME ON OIL	mi			6000		6000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt			16.0		16.0
FILTER	mi					
OIL CHANGED	Changed		Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	15	16	14	8	11	9
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	4	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	1	<1	<1
Aluminium (Al)	4	5	4	3	4	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	3	6	4	6	5
Sodium (Na)	3	2	2	7	<1	4
Potassium (K)	5	4	4	2	4	<1
Additives (ppm)						
Magnesium (Mg)	743	777	788	734	688	734
Calcium (Ca)	1239	1260	1341	1484	1361	1451
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	736	748	754	795	743	783
Zinc (Zn)	826	841	901	924	852	857
Molybdenum (Mo)	7	5	24	36	48	8
Boron (B)	90	64	109	122	69	94
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.6	13.3	13.0	12.6	11.5	12.8
Fuel (%)	2.60	<1	1.20	1.90	2.0	2.00
PQ Index	<10	14	<10	11	<10	<10
Soot (%) Infrared D7844	0.2	0.2	<0.1	0.2	0.3	0.2



ANALYST: roldan.beldad

LEGEND

Normal Severe Abnormal Caution Normal

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UIN 055406A

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5300 OakBrook Parkway
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800.726.5400
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- Phoenix, Arizona - 440**
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- Portland, Oregon - 401**
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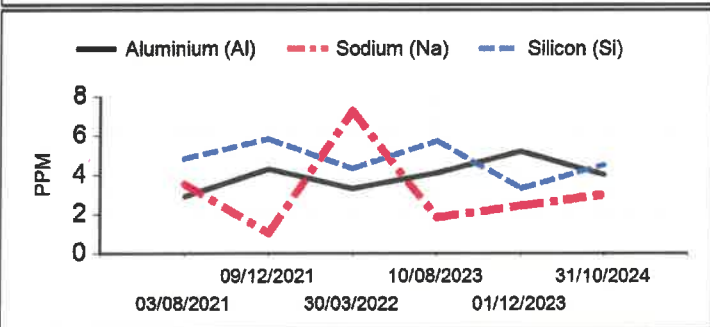
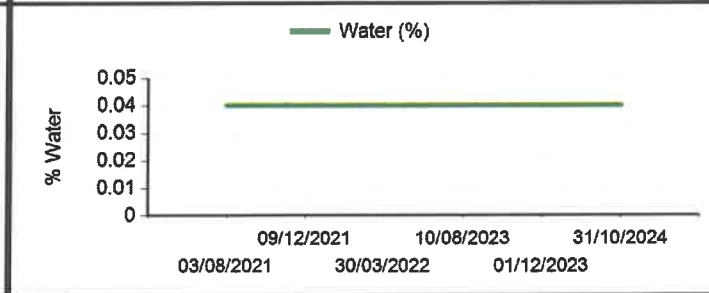
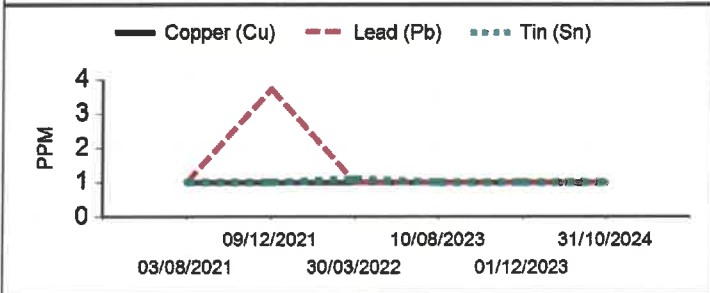
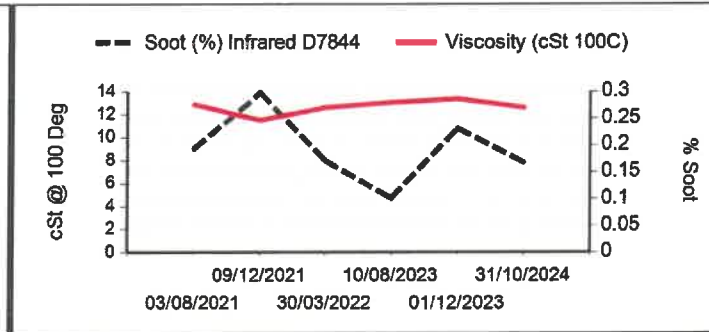
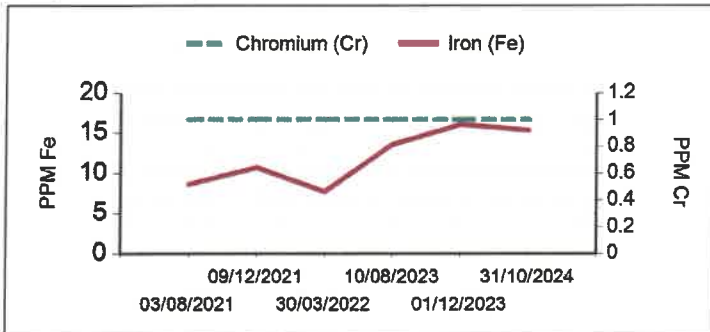
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Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 055406C

Automatic Transmission

Unit No. 1502

Unit:
Make Freightliner
Model
Serial No. 4U2AD1RDU6GCHK9539

Site

Compartment:
Name Automatic Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	31-Oct-24	01-Dec-23	10-Aug-23	30-Mar-22	09-Dec-21	03-Aug-21
DATE RECEIVED	14-Nov-24	08-Dec-23	29-Aug-23	04-May-22	26-Jan-22	15-Sep-21
DATE REPORTED	15-Nov-24	11-Dec-23	30-Aug-23	05-May-22	27-Jan-22	17-Sep-21
LAB NO.	44023498374	44023195909	44023107504	44022722125	44022647165	44022558562
SIF NO.	704538935	701689955	701689906	39776153	39776228	38635093
TIME ON UNIT	mi			12000		15000
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0	8.0			
FILTER	mi	Not Applicable				15000
OIL CHANGED		Changed	Not Changed	Changed	Not Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	9	7	9	8	9	8
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	2	<1
Copper (Cu)	3	2	3	3	3	3
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	1	2	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	3	5	5	6	5
Sodium (Na)	1	1	<1	4	<1	1
Potassium (K)	<1	2	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	30	30	29	39	17	2
Calcium (Ca)	102	100	87	115	87	91
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	247	238	245	282	232	218
Zinc (Zn)	47	49	55	73	48	39
Molybdenum (Mo)	1	1	2	3	1	<1
Boron (B)	88	76	91	91	94	92
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.9	7.2	7.1	7.0	7.1	7.0
Solids (%)	<0.1	0.1	<0.1	0.1	<0.1	<0.1
Additional						
PQ Index	<10	10	11	11	<10	<10

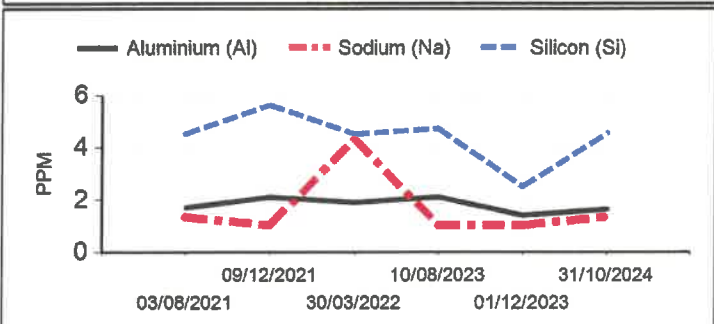
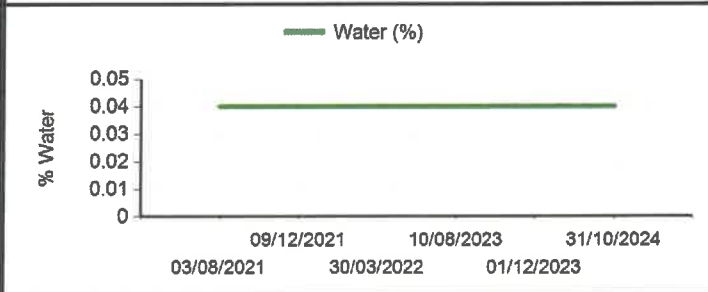
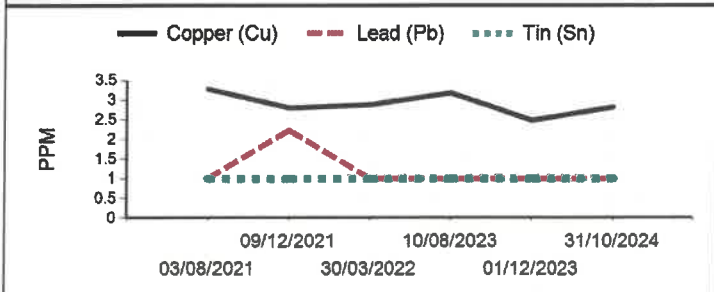
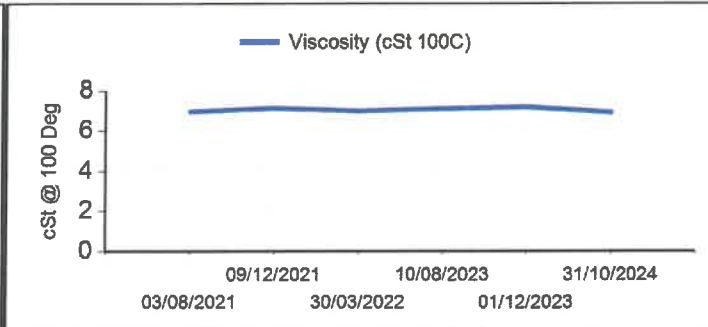
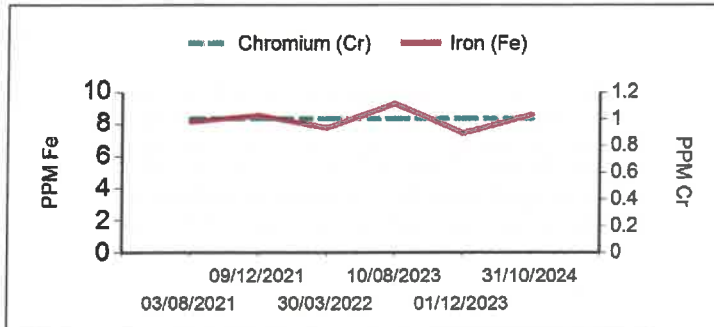
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 055406C



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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International Locations

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Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 0AFBBC4

Gasoline Engine

Unit No. 2407

Unit:

Make Ford
Model E-450
Serial No. 1FDFE4FN5RDD39201

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity:

Customer:

PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	30-Oct-24
DATE RECEIVED	14-Nov-24
DATE REPORTED	15-Nov-24

LAB NO.		44023498371
SIF NO.		704538932
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND		Unidentified
OIL TYPE		Unidentified
OIL GRADE		SAE 5W30
OIL ADDED		8.0
FILTER	mi	
OIL CHANGED		Changed
WO NUMBER		

Metals (ppm)

Iron (Fe)	18
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	12
Tin (Sn)	<1
Aluminium (Al)	4
Nickel (Ni)	<1
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)

Silicon (Si)	30
Sodium (Na)	7
Potassium (K)	4

Additives (ppm)

Magnesium (Mg)	491
Calcium (Ca)	1345
Barium (Ba)	<1
Phosphorus (P)	730
Zinc (Zn)	872
Molybdenum (Mo)	275
Boron (B)	28

Contaminants

Water (%)	<0.05
Coolant	No

Physical Tests

Viscosity (cSt 100C)	10.1
PQ Index	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AFBBC4

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 800.726.5400

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 800.332.8055

Phoenix, Arizona - 440
 3319 West Earle Drive
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 800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

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South America

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

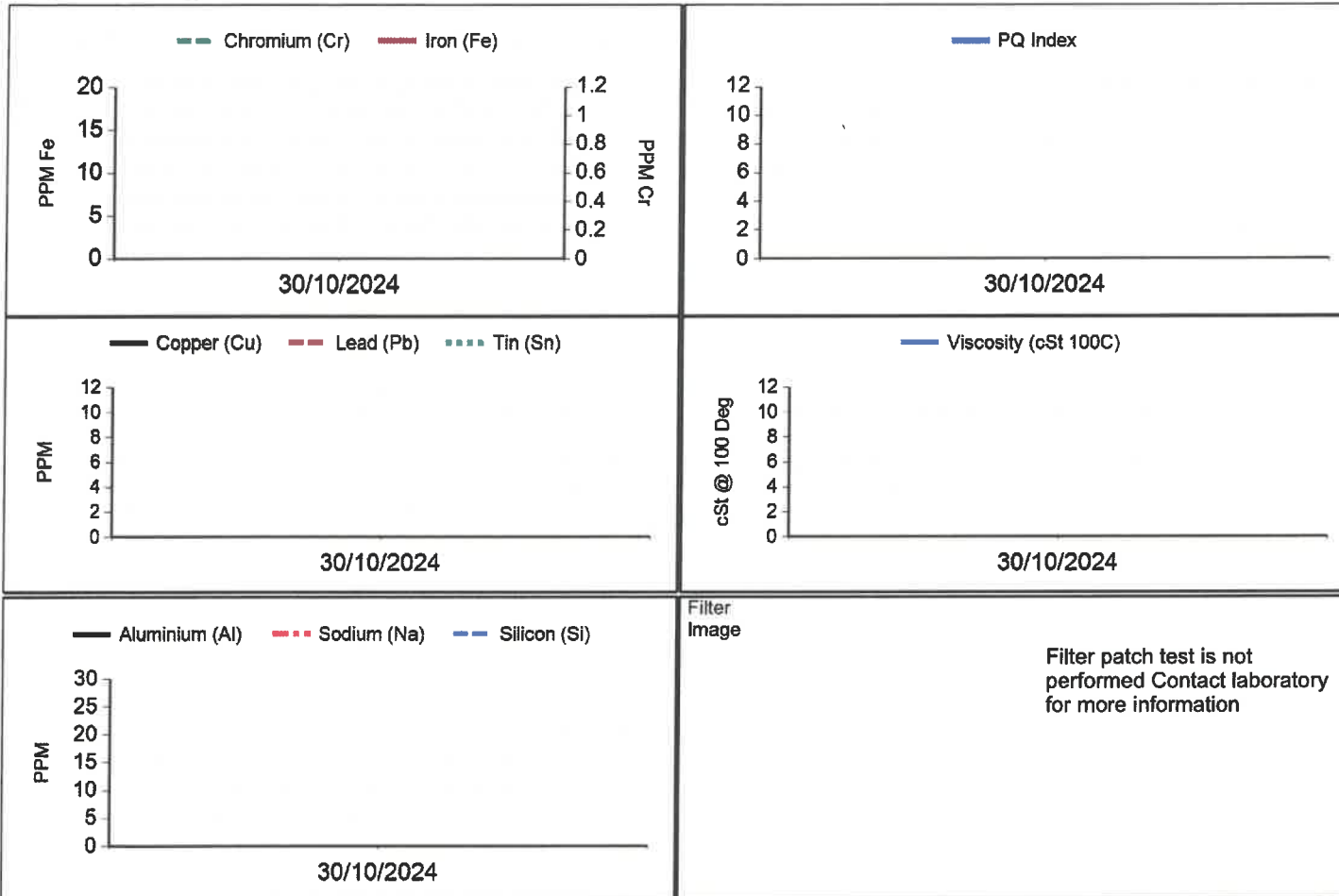
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



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UIN 0AFBBC5

Transmission

Unit No. 2407

Unit: Ford
Make: E-450
Model: 1FDFE4FN5RDD39201
Serial No.

Site

Compartment: Transmission
Name

Make
Model
Serial No.
Capacity:

Customer: PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample at next recommended interval to monitor and establish wear trend.

ANALYST: roldan.beldad

Legend box with icons for Normal, Severe, Abnormal, Caution, and Normal.

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Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their respective dates.

Table with 2 columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and their values.

Table with 2 columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with 2 columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with 2 columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with 2 columns: Contaminants and Water (%) value <0.05.

Table with 2 columns: Physical Tests and values for Viscosity (cSt 100C) and Solids (%).

Table with 2 columns: Additional and PQ Index value 12.





UIN 0AFBBC5

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Kuala Lumpur, Singapore

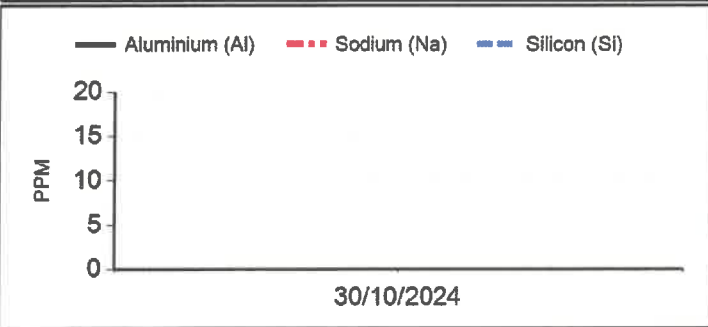
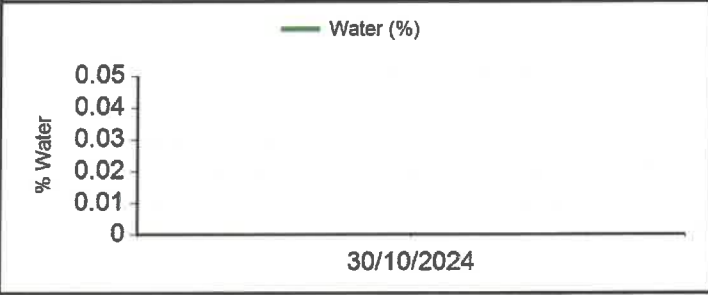
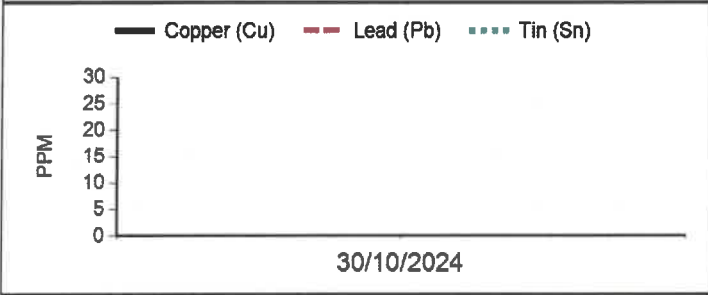
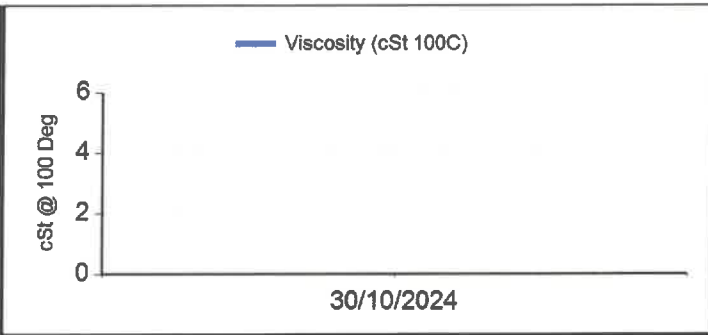
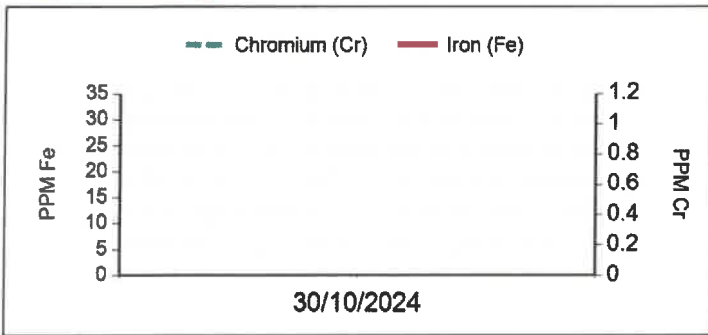
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0916D7B

Transmission

Unit No. 2101

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	15-Nov-24	26-Jul-24	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23
DATE RECEIVED	25-Nov-24	14-Aug-24	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23
DATE REPORTED	26-Nov-24	15-Aug-24	25-Apr-24	11-Dec-23	27-Jun-23	13-Mar-23
LAB NO.	44023508249	44023415910	44023318105	44023195911	43021792842	44022956865
SIF NO.	704538907	702897547	702897577	701689958	701689895	700592803
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0	8.0			8.0
FILTER						
OIL CHANGED	Not Changed	Changed	Changed	Not Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	27	31	31	34	38	42
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	2	2	3	4	3
Copper (Cu)	5	6	6	8	9	13
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	5	5	6	6	7
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	4	4	2	5	8
Sodium (Na)	1	<1	3	2	3	<1
Potassium (K)	<1	<1	1	2	<1	1
Additives (ppm)						
Magnesium (Mg)	15	21	27	30	52	44
Calcium (Ca)	58	77	91	96	154	109
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	220	227	224	236	258	257
Zinc (Zn)	21	28	37	40	73	58
Molybdenum (Mo)	<1	<1	1	1	2	2
Boron (B)	83	78	86	73	91	92
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.7	6.6	6.9	6.6	6.8	6.7
Solids (%)	<0.1	<0.1	0.1	0.1	<0.1	0.1
Additional						
PQ Index	14	12	16	13	11	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0916D7B

U.S. Laboratories

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 5300 Oakbrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

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 5036 South Service Rd.
 Burlington, ON L7L5Y7
 905 332 9559

Edmonton, Alberta - 402
 9450 17 Ave NW
 Edmonton, AB T6N 1M9
 +1 (780) 483-1036

Sales & Marketing

Houston, Texas
 10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia
 Brisbane, Perth, Sydney, Muswellbrook

South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand
 Wellington

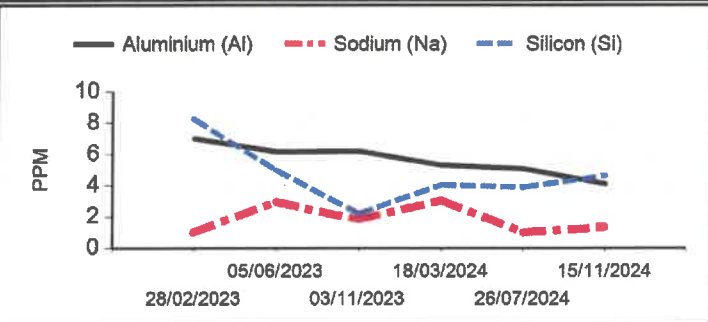
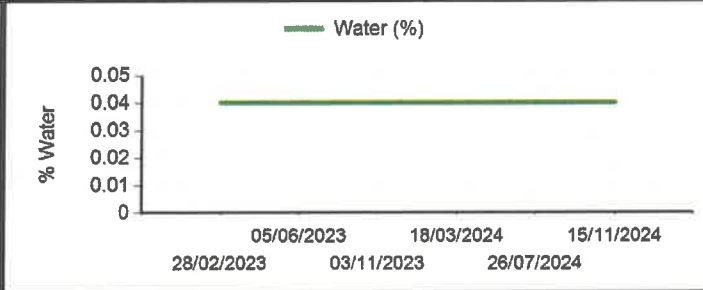
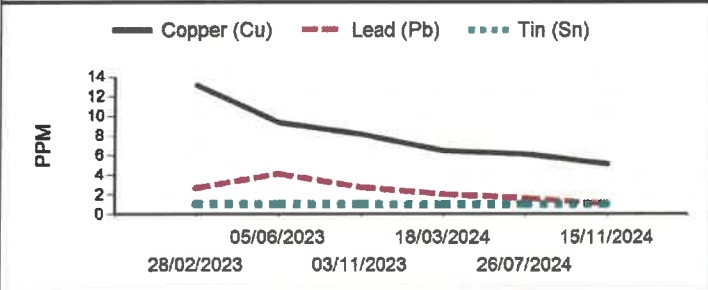
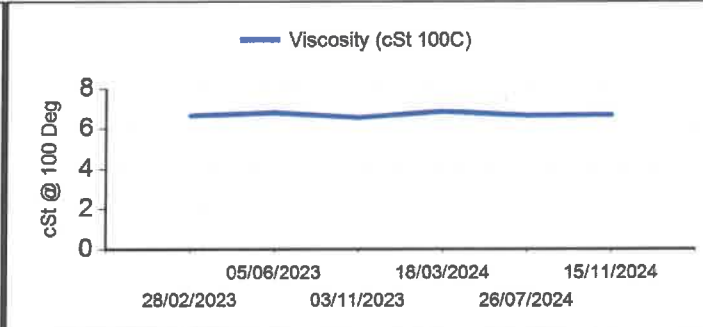
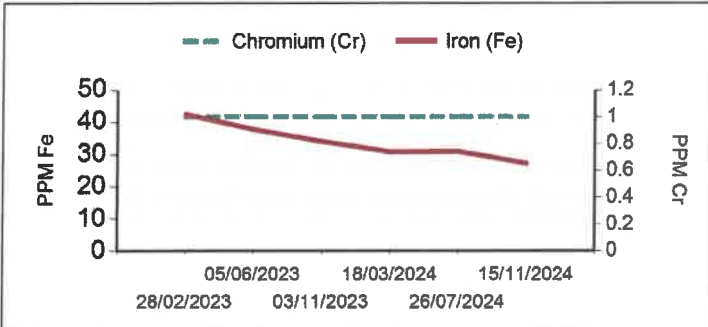
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

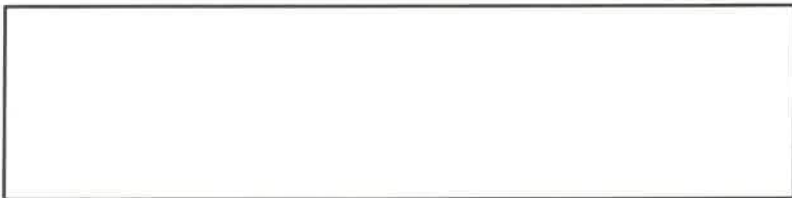
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 08046DA

Transmission

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Unit/oil times unknown. All wear levels remain constant. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample at a reduced service interval to further monitor.

DATE SAMPLED	29-Aug-24	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23	13-Oct-22
DATE RECEIVED	12-Sep-24	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23	31-Oct-22
DATE REPORTED	13-Sep-24	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23	02-Nov-22
LAB NO.	44023441479	44023318107	44023253081	44023069487	44022956867	44022856763
SIF NO.	702897489	702897575	702897512	701689980	700592802	700592854
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	3.0	3.0	3.0		3.0	3.0
FILTER						
OIL CHANGED	Changed	Changed	Changed	Not Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	62	59	75	50	45	41
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	7	7	9	8	7	7
Tin (Sn)	2	2	2	2	1	1
Aluminium (Al)	38	35	44	30	21	17
Nickel (Ni)	2	2	3	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	8	7	9	8	10	6
Sodium (Na)	2	2	3	<1	<1	2
Potassium (K)	<1	2	<1	<1	<1	1
Additives (ppm)						
Magnesium (Mg)	2	5	7	3	7	4
Calcium (Ca)	134	132	145	143	148	132
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	188	183	200	183	189	182
Zinc (Zn)	5	10	15	6	12	7
Molybdenum (Mo)	1	3	4	2	4	2
Boron (B)	60	65	63	70	65	61
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	6.0	5.9	5.9	5.7	6.1
Solids (%)	<0.1	0.1	<0.1	0.1	0.1	<0.1
Additional						
PQ Index	18	20	16	16	10	14

ANALYST: paul.kittrick

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

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UIN 08046DA

U.S. Laboratories

- Atlanta, Georgia - 420**
5300 OakBrook Parkway
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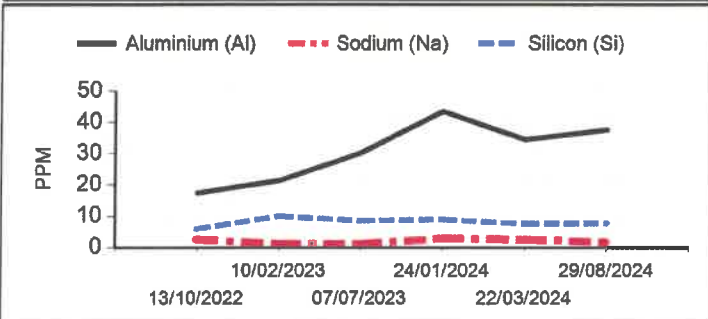
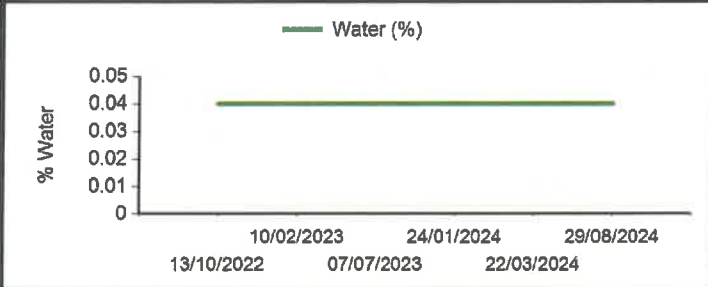
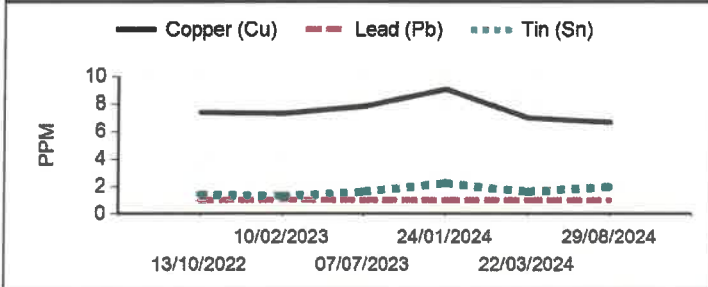
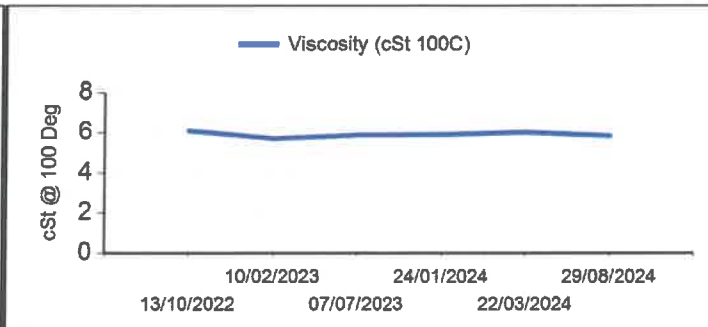
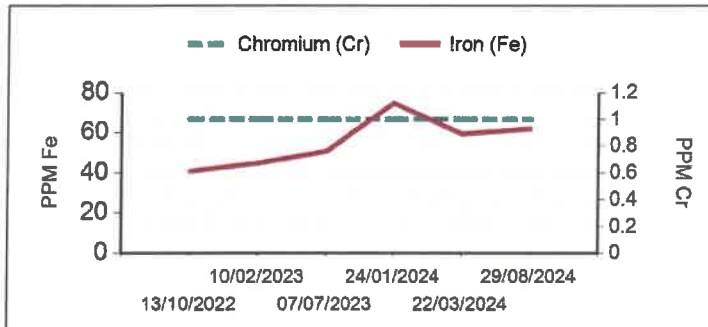
International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06405F1

Diesel Engine

Unit No. 1601

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU9HCJC8216

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All engine wear rates normal. Fuel dilution at a problem level. Other contaminant levels acceptable. Viscosity low for specified oil grade. Action: Check fuel injection system. As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	25-Oct-24	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21
DATE RECEIVED	29-Oct-24	31-Jul-24	05-Mar-24	30-Aug-22	20-Apr-22	10-Dec-21
DATE REPORTED	31-Oct-24	02-Aug-24	06-Mar-24	01-Sep-22	24-Apr-22	14-Dec-21
LAB NO.	44023485535	44023403749	44023270760	44022810876	44022710219	44022619008
SIF NO.	704538917	702897503	702897535	700592794	39776170	39776216
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt 16.0	16.0	16.0		16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed		Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	16	74	6	16	8
Chromium (Cr)	<1	<1	2	<1	<1	<1
Lead (Pb)	<1	<1	<1	3	<1	<1
Copper (Cu)	<1	<1	2	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	4	26	2	8	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	5	9	3	6	5
Sodium (Na)	1	2	3	3	3	1
Potassium (K)	2	4	29	2	10	3
Additives (ppm)						
Magnesium (Mg)	124	390	773	580	652	682
Calcium (Ca)	2145	1796	1422	1118	1409	1272
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	915	794	808	559	713	728
Zinc (Zn)	1042	964	849	649	814	811
Molybdenum (Mo)	3	6	5	8	88	8
Boron (B)	14	26	35	77	178	87
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	11.6	12.3	11.9	12.7	12.1	12.5
Fuel (%)	5.9	3.40	5.0	1.60	3.50	3.20
PQ Index	<10	<10	<10	<10	14	<10
Soot (%) Infrared D7844	0.1	0.4	0.8	0.2	0.3	0.2





UIN 06405F1

U.S. Laboratories

Atlanta, Georgia - 420
 5300 Oakbrook Parkway
 Building 200 Suite 245
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Valley View, Ohio - 410
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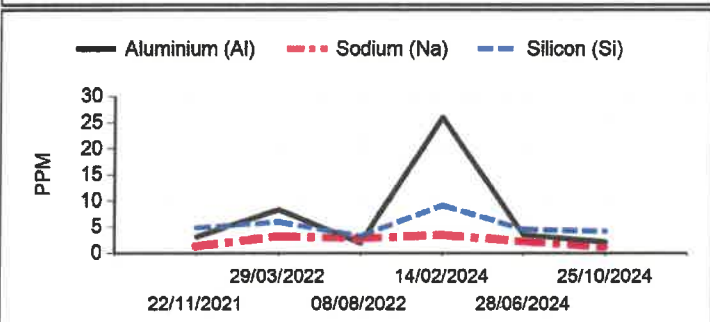
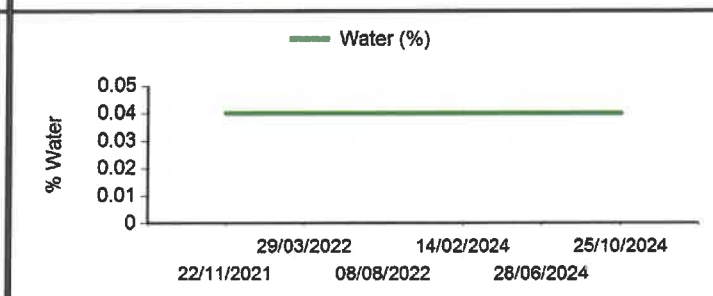
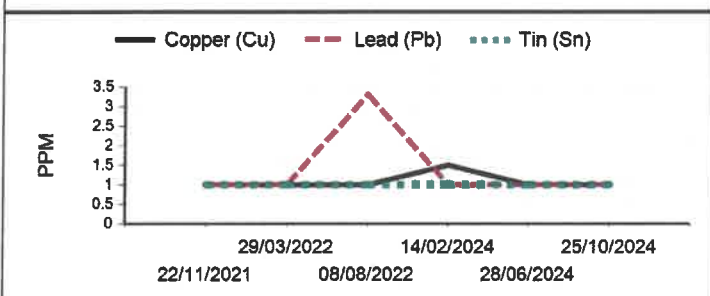
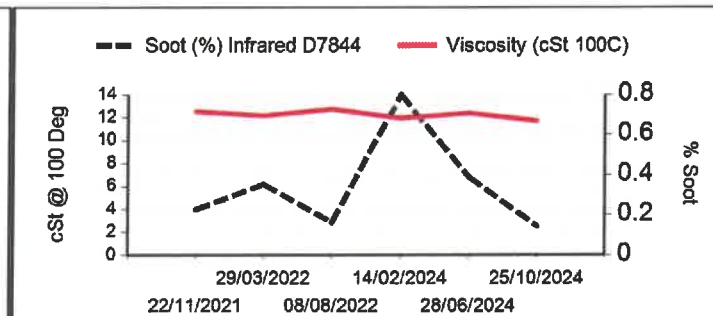
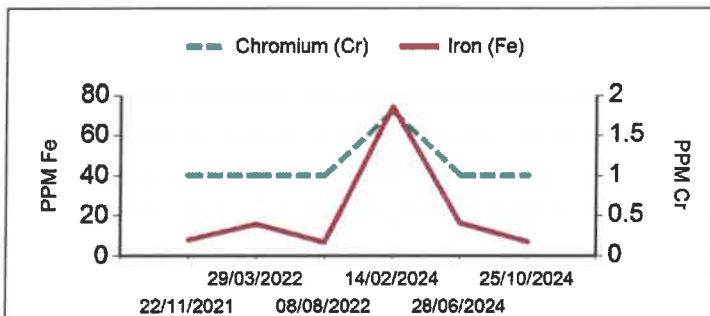
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 06405F2

Transmission

Unit No. 1601

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU9HCJC8216

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal				
	Severe	Abnormal	Caution	Normal

	25-Oct-24	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21
DATE SAMPLED	25-Oct-24	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21
DATE RECEIVED	29-Oct-24	31-Jul-24	05-Mar-24	30-Aug-22	04-May-22	10-Dec-21
DATE REPORTED	30-Oct-24	02-Aug-24	06-Mar-24	01-Sep-22	05-May-22	14-Dec-21
LAB NO.	44023485536	44023403753	44023270761	44022810875	44022722126	44022619009
SIF NO.	704538916	702897504	702897536	700592793	39776155	39776220
TIME ON UNIT	mi				12000	
TIME ON OIL	mi				Unidentified	Unidentified
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt		8.0			8.0
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	16	21	27	8	15	16
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	1	1	2	4	2	2
Copper (Cu)	5	8	10	3	6	6
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	2	2	1	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	4	4	4	5
Sodium (Na)	<1	2	2	1	4	2
Potassium (K)	<1	<1	<1	<1	<1	1
Additives (ppm)						
Magnesium (Mg)	23	25	43	35	19	3
Calcium (Ca)	72	78	106	82	87	69
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	244	228	300	222	253	208
Zinc (Zn)	35	41	68	51	48	30
Molybdenum (Mo)	1	2	3	2	1	<1
Boron (B)	82	85	98	84	85	88
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.8	6.7	6.9	7.1	6.8	6.8
Solids (%)	<0.1	0.1	<0.1	<0.1	0.1	<0.1
Additional						
PQ Index	10	10	11	<10	11	<10

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UIN 06405F2

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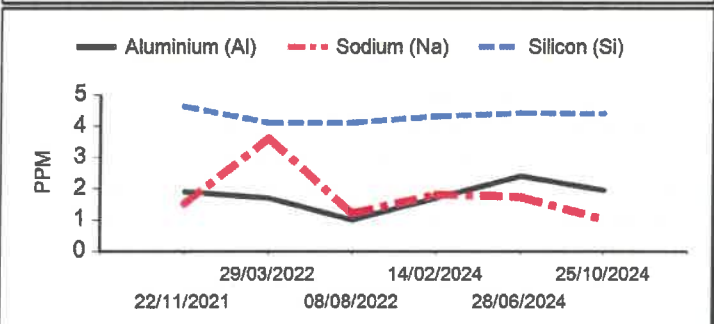
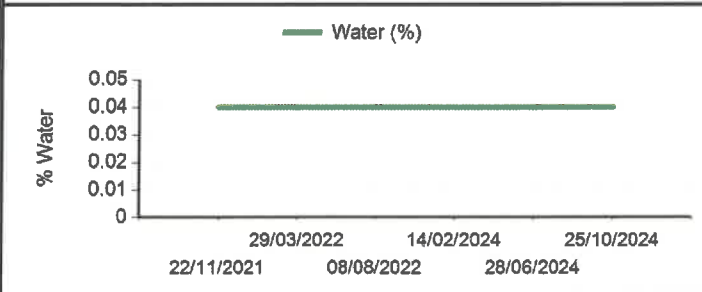
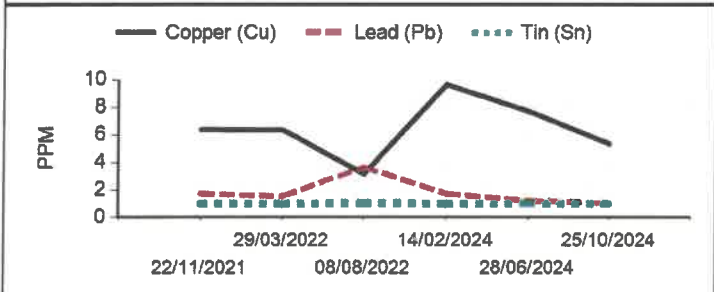
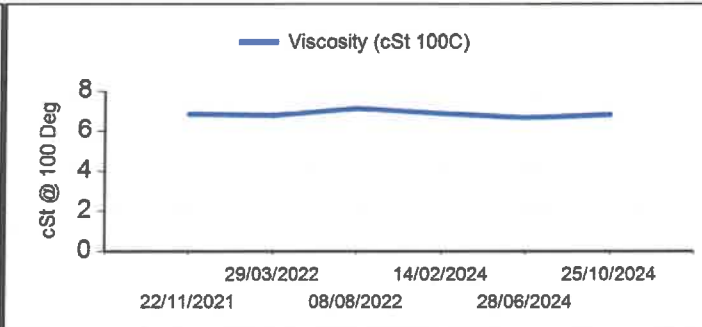
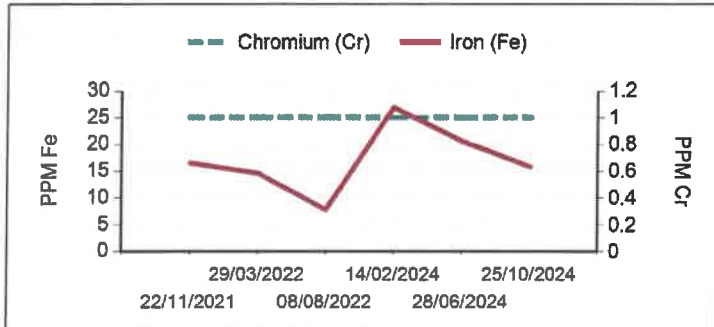
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 081ABA1

Transmission

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 8.0

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Check for any abnormal noise, vibration, or poor performance. As oil already changed, resample at a reduced service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

DATE SAMPLED	22-Oct-24	20-Jun-24	07-Mar-24	09-Oct-23	25-May-23	18-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23
DATE REPORTED	31-Oct-24	02-Jul-24	26-Mar-24	23-Oct-23	08-Jun-23	03-Feb-23
LAB NO.	44023485538	44023376816	44023289157	44023153375	44023033927	44022929711
SIF NO.	704538921	702897552	702897584	701689938	701689979	700592813
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	3.0	3.0	3.0			3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	106	82	90	102	77	47
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	8	11	11	10	9
Tin (Sn)	5	3	4	3	3	2
Aluminium (Al)	90	70	87	82	55	29
Nickel (Ni)	4	3	3	4	5	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	17	12	5	12	9	5
Sodium (Na)	1	2	2	<1	1	<1
Potassium (K)	<1	<1	<1	2	<1	<1
Additives (ppm)						
Magnesium (Mg)	2	3	3	4	5	3
Calcium (Ca)	122	127	133	127	133	121
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	190	180	198	194	176	183
Zinc (Zn)	4	6	6	7	7	5
Molybdenum (Mo)	1	1	2	2	3	2
Boron (B)	63	66	58	72	64	51
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.8	5.8	5.8	5.8
Solids (%)	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Additional						
PQ Index	25	20	16	12	12	12

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UIN 081ABA1

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Wellington

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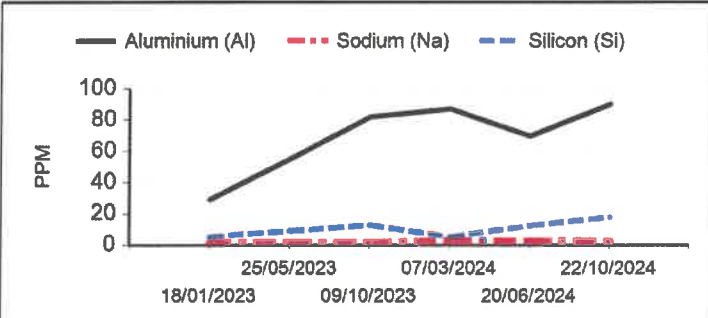
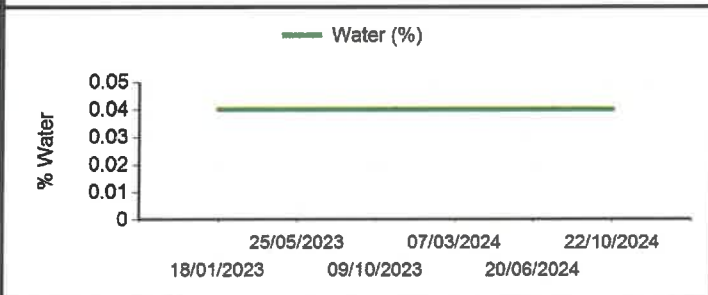
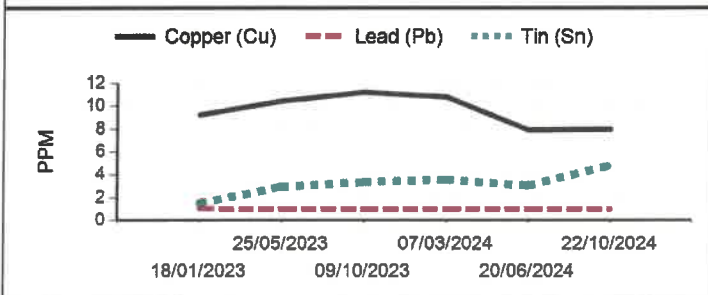
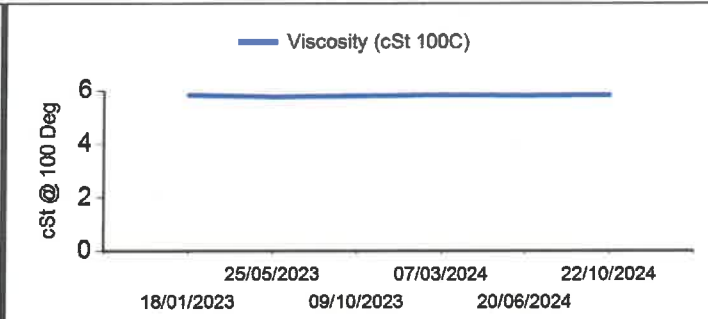
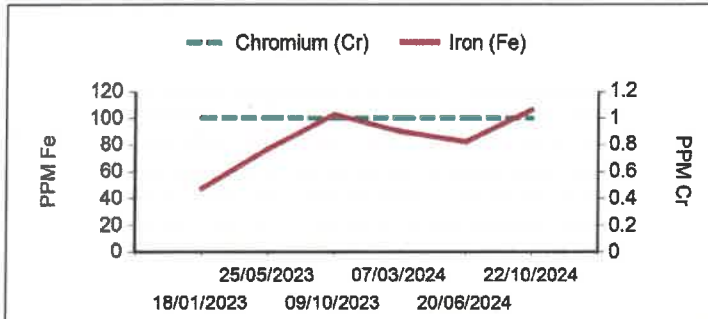
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07CB197

Gasoline Engine

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

	22-Oct-24	20-Jun-24	01-Mar-24	09-Oct-23	25-May-23	18-Jan-23
DATE SAMPLED	22-Oct-24	20-Jun-24	01-Mar-24	09-Oct-23	25-May-23	18-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23
DATE REPORTED	30-Oct-24	01-Jul-24	25-Mar-24	23-Oct-23	14-Jun-23	03-Feb-23
LAB NO.	44023485537	44023376815	44023289156	44023153376	44023033926	44022929710
SIF NO.	704538920	702897551	702897583	701689939	701689978	700592814
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Havoline ProDS Full	Havoline ProDS Full	Havoline ProDS	Havoline ProDS Full	Havoline ProDS	Havoline ProDS
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	16	32	31	426	44	15
Chromium (Cr)	<1	<1	<1	6	1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	2	2	18	3	1
Tin (Sn)	<1	<1	<1	2	1	<1
Aluminium (Al)	3	5	10	166	11	3
Nickel (Ni)	<1	3	<1	4	1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	13	19	17	106	29	11
Sodium (Na)	9	9	6	18	10	<1
Potassium (K)	<1	2	1	3	<1	<1
Additives (ppm)						
Magnesium (Mg)	489	560	552	577	541	440
Calcium (Ca)	1373	1410	1648	1611	1523	1232
Barium (Ba)	<1	<1	<1	19	<1	<1
Phosphorus (P)	710	719	786	799	702	680
Zinc (Zn)	849	946	981	975	869	817
Molybdenum (Mo)	296	299	326	328	308	180
Boron (B)	14	20	15	22	17	20
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.1	8.6	8.7	10.3	10.0	8.6
PQ Index	11	<10	<10	33	15	<10

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UIN 07CB197

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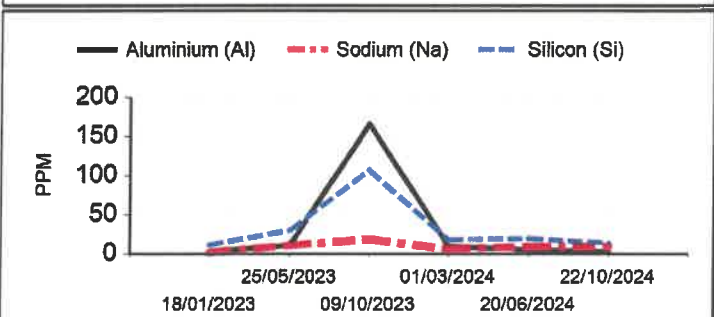
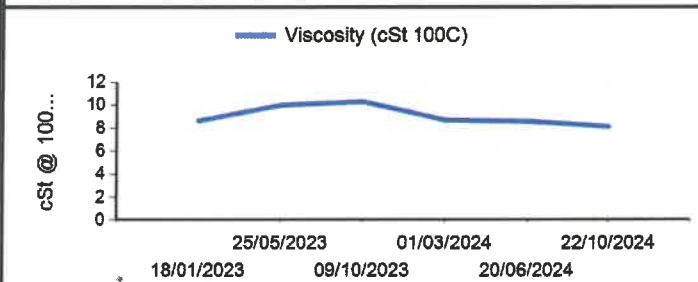
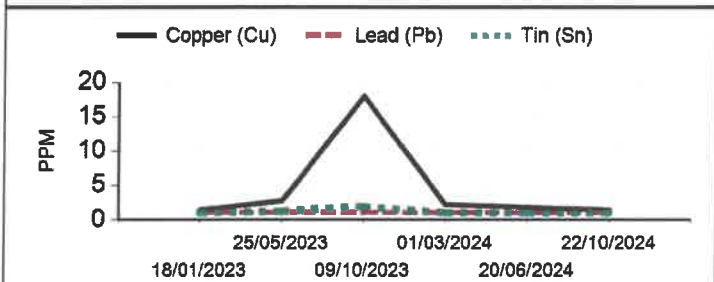
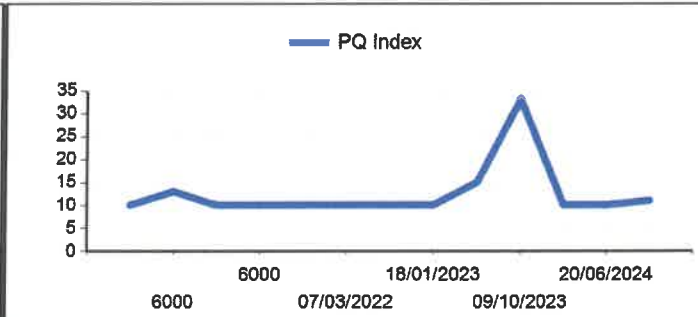
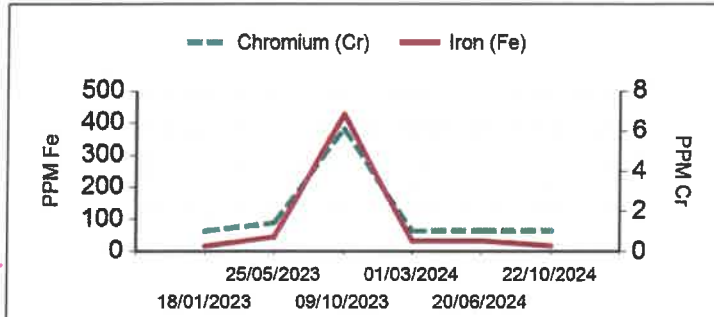
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 065F365

Transmission

Unit No. 1713

Unit:
Make Freightliner
Model S2
Serial No. 4UZADREDIJCJT5538

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 18.0 gal

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: Resample next service interval to further monitor.

DATE SAMPLED	21-Oct-24	17-Jun-24	14-Sep-23	12-Aug-22	19-Apr-22	02-Dec-11
DATE RECEIVED	29-Oct-24	01-Jul-24	20-Sep-23	30-Aug-22	26-May-22	26-Jan-22
DATE REPORTED	30-Oct-24	02-Jul-24	25-Sep-23	01-Sep-22	28-May-22	27-Jan-22
LAB NO.	44023485540	44023376819	44023128160	44022810874	44022740948	44022647160
SIF NO.	704538918	702897550	701689911	700592792	39776187	39776223
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	ATF	ATF	ATF
OIL GRADE	Unknown	Unknown	Unknown	ATF	ATF	ATF
OIL ADDED	gal	8.0				
FILTER	Not Applicable					
OIL CHANGED	Not Changed	Changed	Changed	Not Changed		Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	66	43	53	24	24	22
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	3	<1	5
Copper (Cu)	4	5	7	4	4	8
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	3	4	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	6	6	5	6	6
Sodium (Na)	<1	2	2	1	2	1
Potassium (K)	2	<1	2	<1	1	<1
Additives (ppm)						
Magnesium (Mg)	24	28	40	34	37	19
Calcium (Ca)	84	92	126	90	111	87
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	240	226	258	217	261	229
Zinc (Zn)	36	43	62	55	65	47
Molybdenum (Mo)	1	1	2	2	2	1
Boron (B)	82	88	87	84	104	98
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	7.0	6.8	6.4	6.8	6.7	6.9
Solids (%)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	30	16	<10	<10	<10	47



ANALYST: Sam Smith Phoenix

Normal

LEGEND

 Severe
 Abnormal
 Caution
 Normal

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UIN 065F365

U.S. Laboratories

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 935 Sunshine Road
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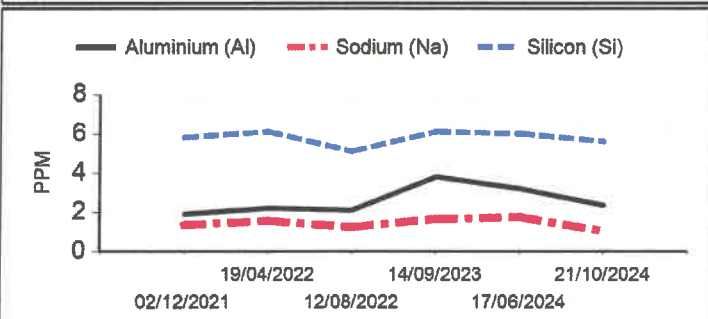
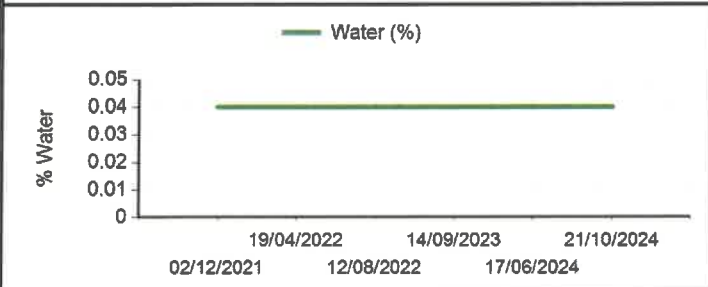
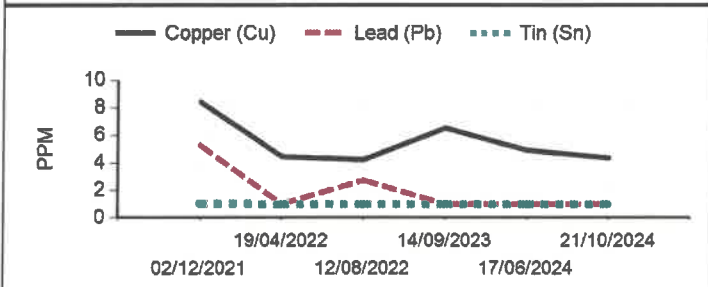
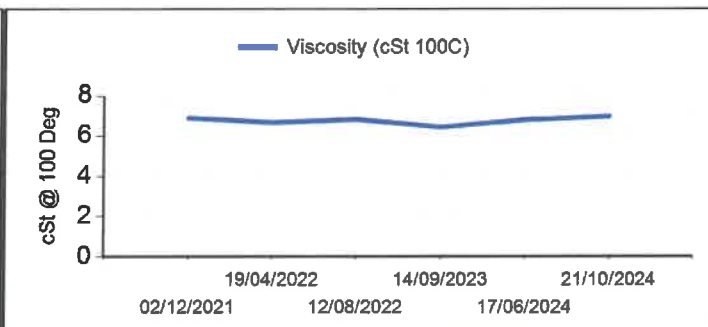
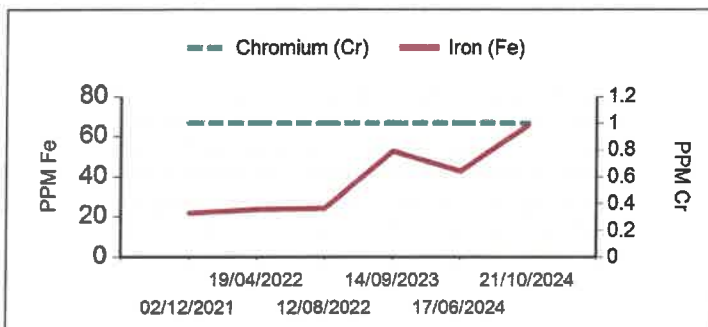
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0650DB1

Diesel Engine

Unit No. 1713

Unit:
Make Freightliner
Model S2
Serial No. 4UZADREDIJCJT5538

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All engine wear rates normal. Massive fuel dilution occurring. Viscosity low for specified oil grade. Action: Change oil and filter(s) if not already done. Check fueling system. Resample after corrective action to further monitor.

ANALYST: roldan.beldad

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

DATE SAMPLED	21-Oct-24	17-Jun-24	14-Sep-23	12-Aug-22	19-Apr-22	02-Dec-21
DATE RECEIVED	29-Oct-24	01-Jul-24	20-Sep-23	30-Aug-22	26-May-22	26-Jan-22
DATE REPORTED	31-Oct-24	02-Jul-24	25-Sep-23	01-Sep-22	28-May-22	27-Jan-22
LAB NO.	44023485539	44023376820	44023128159	44022810873	44022740947	44022647159
SIF NO.	704538919	702897549	701689910	700592791	39776188	39776222
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0		16.0	16.0	
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	16	11	18	26	11	11
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	3	<1	3
Copper (Cu)	1	<1	3	1	<1	<1
Tin (Sn)	<1	<1	<1	1	<1	<1
Aluminium (Al)	2	2	3	3	3	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	5	8	6	5	6
Sodium (Na)	<1	2	3	4	3	2
Potassium (K)	<1	3	4	3	3	2
Additives (ppm)						
Magnesium (Mg)	220	747	778	750	742	681
Calcium (Ca)	1670	1161	1280	1501	1459	1509
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	735	677	720	708	737	764
Zinc (Zn)	859	825	842	857	847	886
Molybdenum (Mo)	4	9	4	25	37	2
Boron (B)	17	88	47	55	120	67
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.4	11.4	11.9	12.9	12.0	12.8
Fuel (%)	>10	6.2	4.7	<1	3.70	1.10
PQ Index	<10	10	<10	<10	<10	<10
Soot (%) Infrared D7844	0.2	0.2	0.2	0.2	0.2	0.1



UIN 0650DB1

U.S. Laboratories

Atlanta, Georgia - 420
5300 Oakbrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669

Valley View, Ohio - 410
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440
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800.445.7930

Portland, Oregon - 401

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Portland, OR 97210
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905 332 9559

Edmonton, Alberta - 402
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International Locations

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

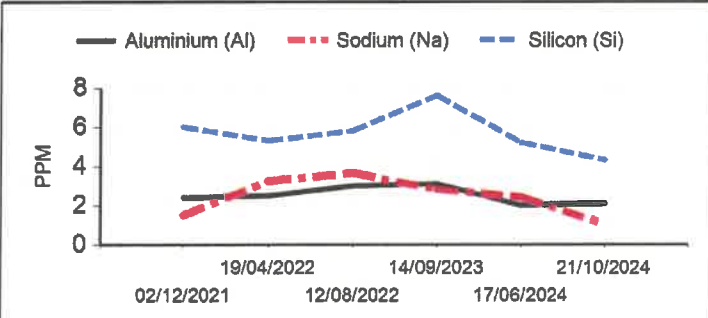
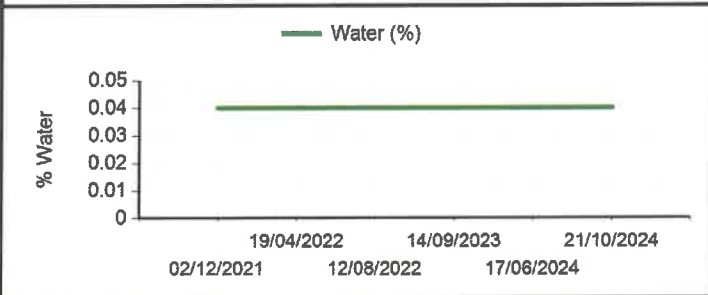
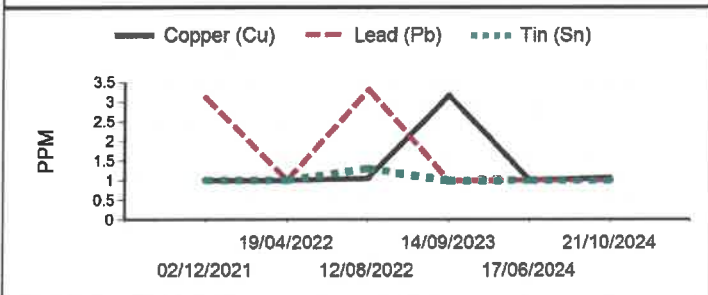
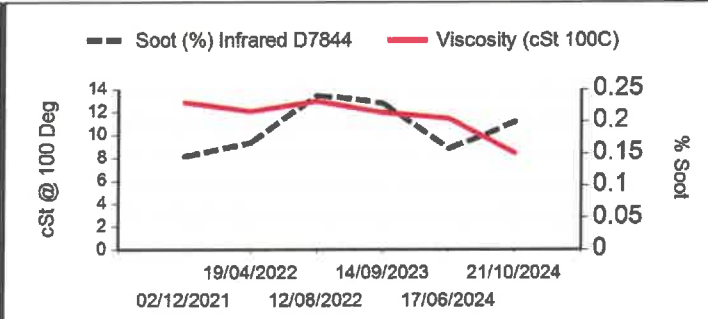
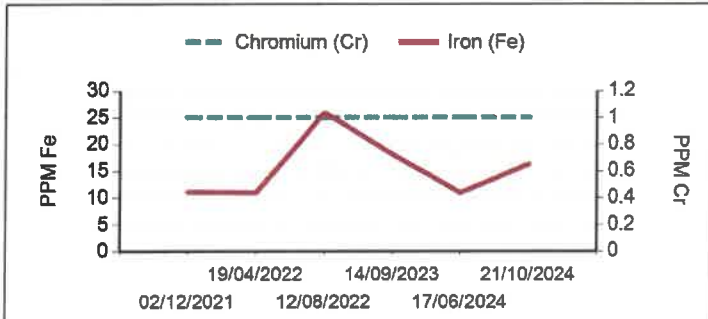
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 086A56A

Transmission

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample next recommended service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	18-Oct-24	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23
DATE REPORTED	31-Oct-24	02-Jul-24	26-Mar-24	10-Nov-23	27-Jun-23	20-Jan-23
LAB NO.	44023485544	44023376818	44023289152	44023169868	43021792840	44022918315
SIF NO.	704538925	702897553	702897588	701689945	701689896	700592872
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
OIL ADDED	3.0	3.0	3.0	3.0	3.0	3.0
FILTER						
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	68	79	79	65	59	55
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	9	13	11	12	15
Tin (Sn)	2	2	2	1	<1	<1
Aluminium (Al)	46	46	46	25	20	20
Nickel (Ni)	2	2	2	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	10	9	<1	6	6	5
Sodium (Na)	1	2	3	2	3	6
Potassium (K)	<1	1	<1	<1	<1	2
Additives (ppm)						
Magnesium (Mg)	2	2	1	3	6	2
Calcium (Ca)	128	124	143	118	162	128
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	198	184	211	183	212	200
Zinc (Zn)	5	4	10	5	18	5
Molybdenum (Mo)	2	2	3	3	5	5
Boron (B)	66	71	62	65	83	77
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.7	5.8	5.8	5.8	5.7
Solids (%)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	20	19	17	21	14	<10

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UIN 086A56A

U.S. Laboratories

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Wellington

Southeast Asia

Kuala Lumpur, Singapore

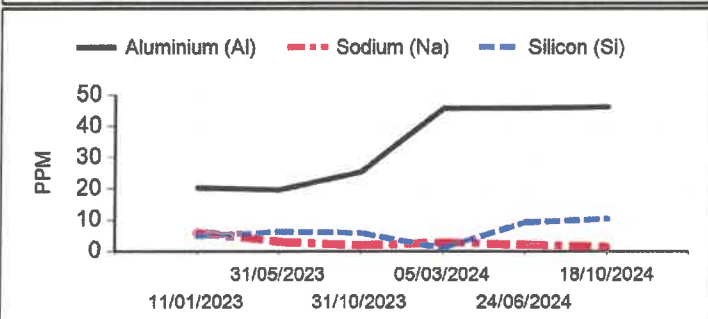
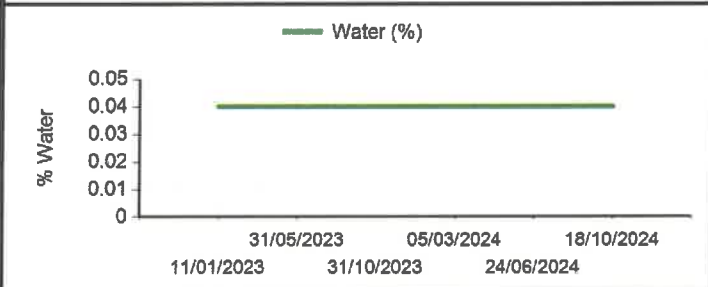
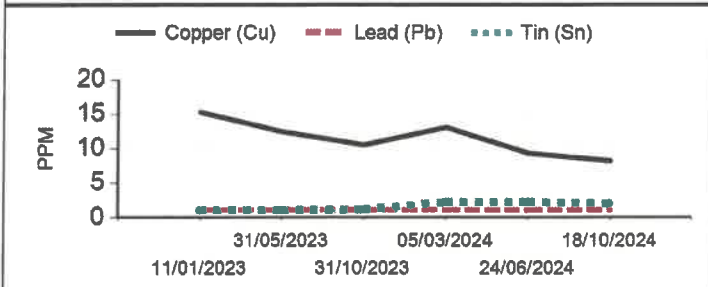
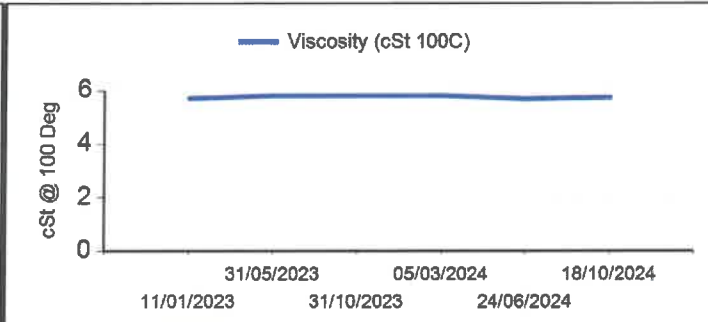
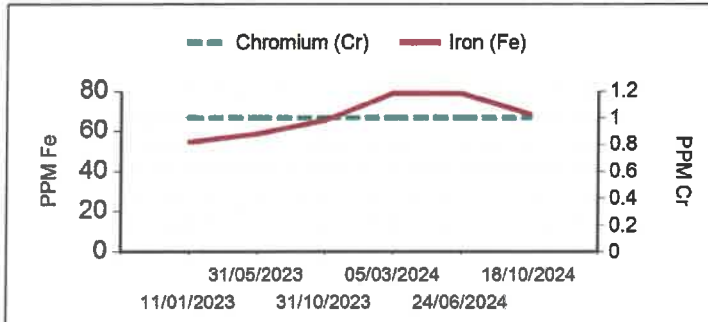
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 07E92A3
Gasoline Engine

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	18-Oct-24	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23
DATE REPORTED	30-Oct-24	01-Jul-24	25-Mar-24	10-Nov-23	24-Jun-23	20-Jan-23
LAB NO.	44023485543	44023376817	44023289153	44023169867	43021792839	44022918314
SIF NO.	704538924	702897554	702897587	701689944	701689897	700592875
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	13	9	23	10	13
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	5	8	8	19	16	36
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	4	4	6	3	7
Nickel (Ni)	<1	5	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	2	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	22	8	24	12	21
Sodium (Na)	13	11	5	7	7	6
Potassium (K)	<1	2	<1	2	<1	3
Additives (ppm)						
Magnesium (Mg)	485	505	545	454	573	644
Calcium (Ca)	1309	1314	1542	1366	1671	1101
Barium (Ba)	<1	<1	<1	<1	<1	2
Phosphorus (P)	667	657	748	647	777	548
Zinc (Zn)	812	862	928	806	968	655
Molybdenum (Mo)	290	280	319	266	330	54
Boron (B)	28	14	17	19	33	47
Contaminants						
Water (%)	<0.05	<0.05	<0.05	0.11	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	7.8	8.6	8.2	10.5	8.1	8.0
PQ Index	<10	<10	10	11	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 07E92A3

U.S. Laboratories

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International Locations

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New Zealand
 Wellington

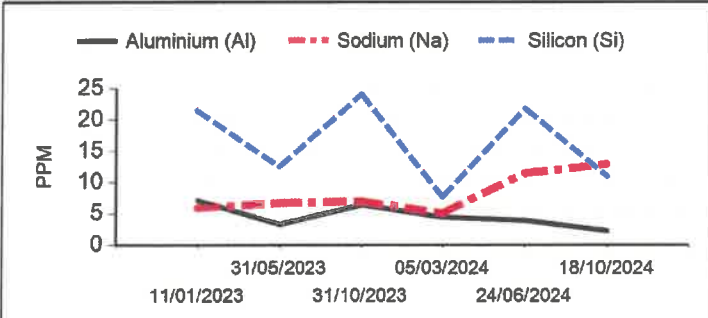
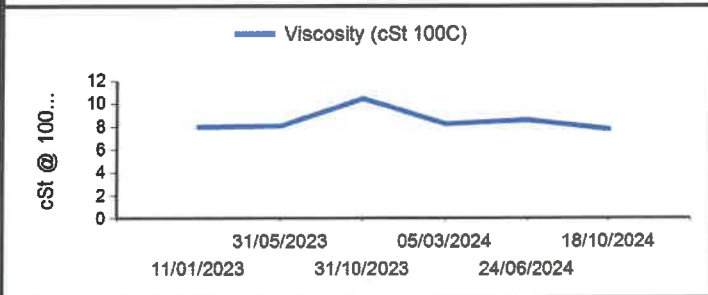
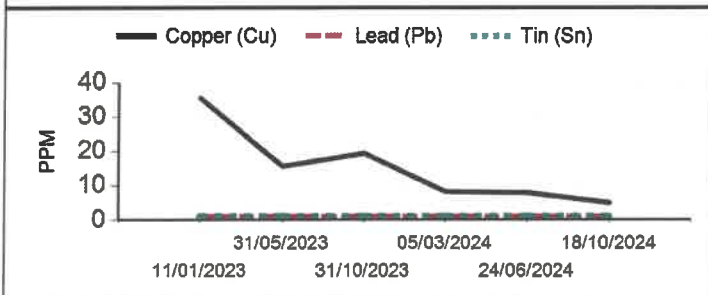
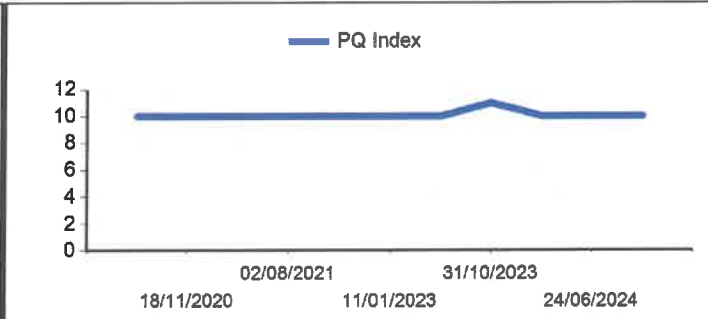
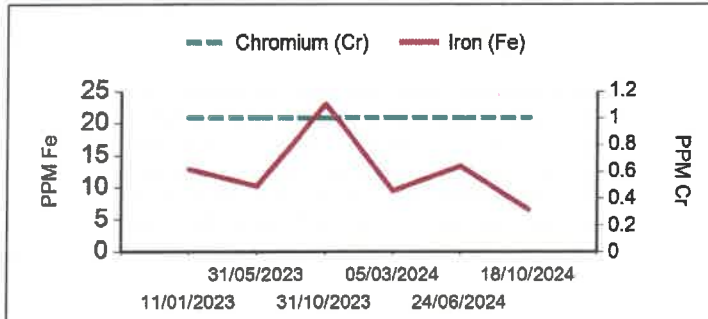
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 073BD60

Diesel Engine

Unit No. 1801

Unit:
Make Freightliner
Model
Serial No. 4UZADRFDXKCKY3513

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 18.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Fuel dilution at a problem level. Other contaminant levels acceptable. Viscosity low for specified oil grade. Action: Check fuel injection system. As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

DATE SAMPLED	17-Oct-24	17-May-24	09-Jan-24	01-Sep-23	24-May-23	12-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	13-Feb-24	20-Sep-23	05-Jun-23	01-Feb-23
DATE REPORTED	31-Oct-24	02-Jul-24	14-Feb-24	22-Sep-23	07-Jun-23	03-Feb-23

LAB NO.	44023485541	44023376812	44023253082	44023128376	44023033924	44022929708
SIF NO.	704538923	702897558	702897510	701689916	701689977	700592815
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	9	14	16	13	17	15
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	2	<1
Aluminium (Al)	1	2	4	2	3	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	4	5	6	5	5
Sodium (Na)	31	2	3	3	5	<1
Potassium (K)	4	3	6	3	3	2

Additives (ppm)						
Magnesium (Mg)	125	431	810	791	772	729
Calcium (Ca)	2213	1705	1263	1453	1357	1370
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	943	784	714	758	703	774
Zinc (Zn)	1080	974	856	835	828	883
Molybdenum (Mo)	4	6	4	3	4	7
Boron (B)	11	26	48	45	49	53

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.0	11.6	12.9	13.2	12.2	12.9
Fuel (%)	5.1	5.2	1.60	<1	3.30	<1
PQ Index	<10	10	10	<10	19	<10
Soot (%) Infrared D7844	0.2	0.3	0.3	0.2	0.1	0.2

ANALYST: roldan.beldad

	LEGEND			
Abnormal	Severe	Abnormal	Caution	Normal

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UIN 073BD60

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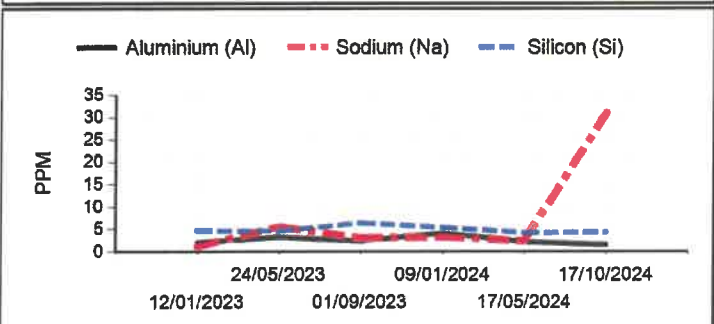
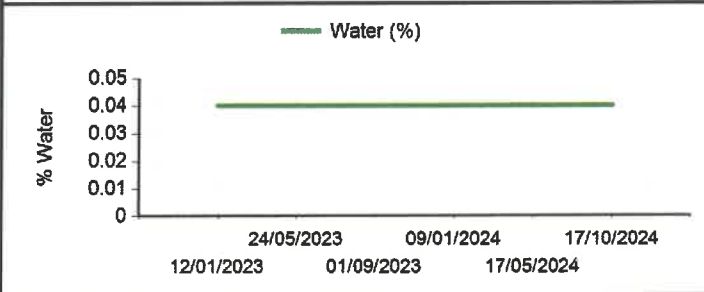
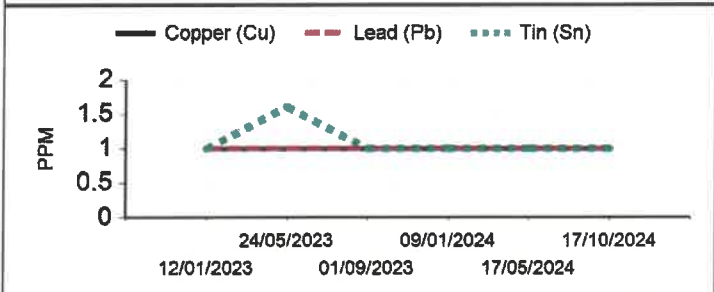
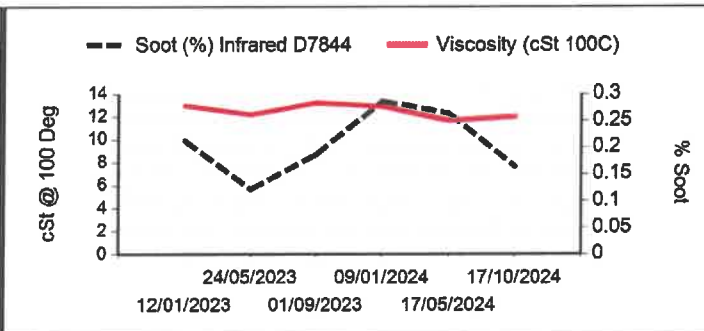
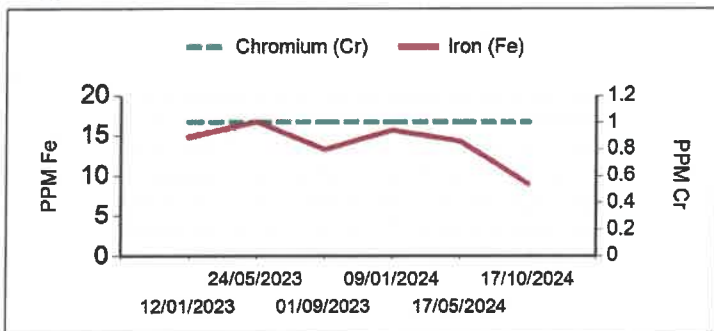
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- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 073BD61

Transmission

Unit No. 1801

Unit:
Make Freightliner
Model
Serial No. 4UZADRFDXKCKY3513

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

	17-Oct-24	17-May-24	09-Jan-24	01-Sep-23	24-May-23	12-Jan-23
DATE SAMPLED	17-Oct-24	17-May-24	09-Jan-24	01-Sep-23	24-May-23	12-Jan-23
DATE RECEIVED	29-Oct-24	01-Jul-24	13-Feb-24	20-Sep-23	05-Jun-23	01-Feb-23
DATE REPORTED	30-Oct-24	02-Jul-24	14-Feb-24	22-Sep-23	08-Jun-23	03-Feb-23
LAB NO.	4402348542	44023376811	44023253083	44023128377	44023033925	44022929709
SIF NO.	704538922	702897557	702897509	701689917	701689976	700592816
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0	8.0	8.0		
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	39	31	36	37	39	27
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	2	2	3	4	4
Copper (Cu)	10	7	8	12	16	12
Tin (Sn)	<1	<1	<1	<1	1	<1
Aluminium (Al)	4	3	3	4	4	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	4	6	5	4
Sodium (Na)	1	1	2	1	<1	<1
Potassium (K)	<1	<1	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	23	23	36	36	42	35
Calcium (Ca)	84	83	107	130	106	85
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	234	220	240	237	253	245
Zinc (Zn)	35	35	50	51	62	60
Molybdenum (Mo)	<1	1	1	2	2	2
Boron (B)	79	85	86	88	89	69
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.4	6.4	6.5	6.4	6.6	6.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	16	67	14	10	<10	87

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UIN 073BD61

U.S. Laboratories

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 Building 200 Suite 245
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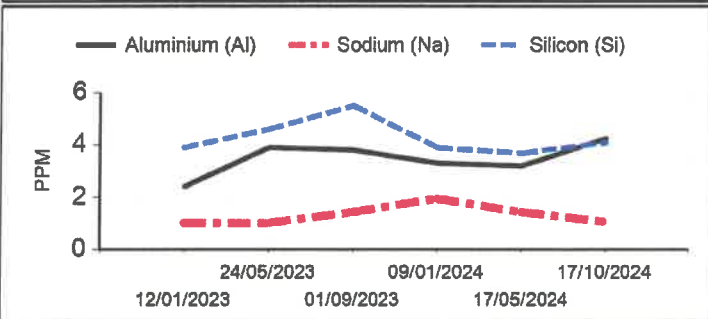
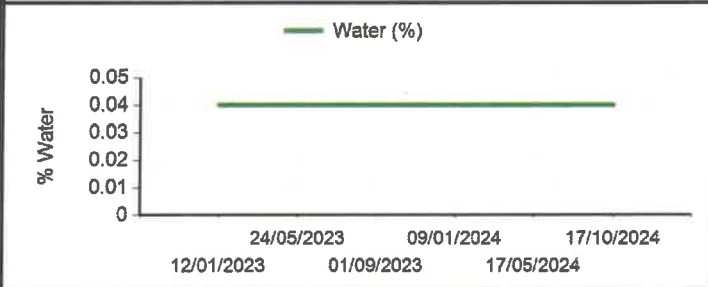
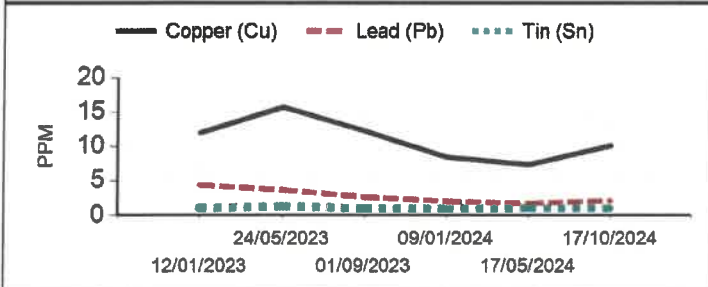
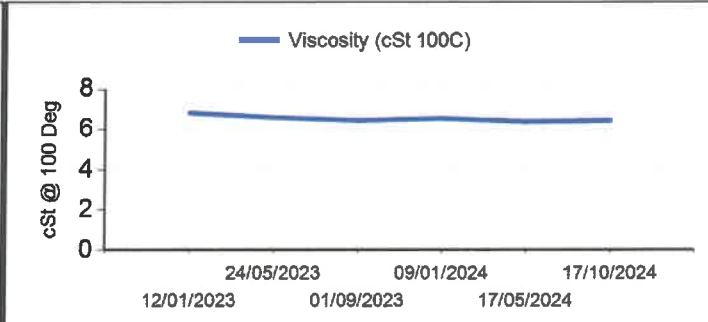
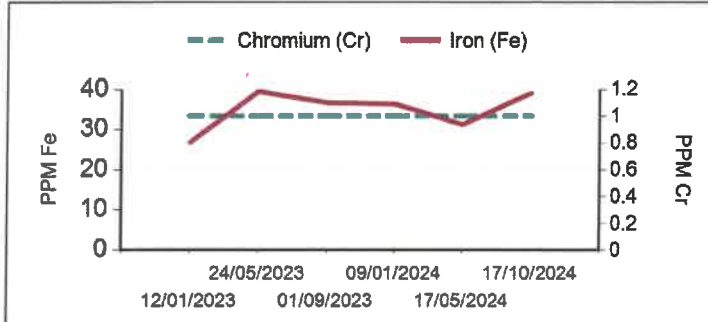
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06AB48C

Transmission

Unit No. 1709

Unit:
Make
Model
Serial No. 57WMD2C68GM100346

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear levels remain constant. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample at a reduced service interval to further monitor.

ANALYST: roldan.beldad

	LEGEND			
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	27-Sep-24	22-Feb-24	06-Oct-23	08-Feb-23	19-Aug-22	28-Jun-21
DATE RECEIVED	11-Oct-24	05-Mar-24	20-Oct-23	08-Mar-23	15-Sep-22	09-Aug-21
DATE REPORTED	14-Oct-24	06-Mar-24	23-Oct-23	13-Mar-23	19-Sep-22	11-Aug-21
LAB NO.	44023468887	44023270763	44023153289	44022956863	44022821208	44022532661
SIF NO.	704538872	702897538	701689937	700592798	700592865	38635086
TIME ON UNIT						12000
TIME ON OIL						Unidentified
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED			3.0	3.0	3.0	3.0
FILTER	Not Applicable					
OIL CHANGED	Changed	Not Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	76	72	79	68	50	116
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	23	23	30	28	22	52
Tin (Sn)	<1	<1	<1	1	1	<1
Aluminium (Al)	38	37	44	43	32	81
Nickel (Ni)	2	2	3	3	2	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	7	7	10	7	12
Sodium (Na)	4	4	2	3	5	9
Potassium (K)	1	<1	4	2	3	4
Additives (ppm)						
Magnesium (Mg)	3	1	2	2	4	2
Calcium (Ca)	139	146	138	140	118	113
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	229	262	250	252	216	173
Zinc (Zn)	6	4	6	6	13	8
Molybdenum (Mo)	5	4	5	7	6	13
Boron (B)	86	93	142	96	83	53
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.9	5.9	5.7	5.8	5.6	5.4
Solids (%)	<0.1	0.1	<0.1	0.1	<0.1	<0.1
Additional						
PQ Index	24	24	19	15	13	31

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UIN 06AB48C

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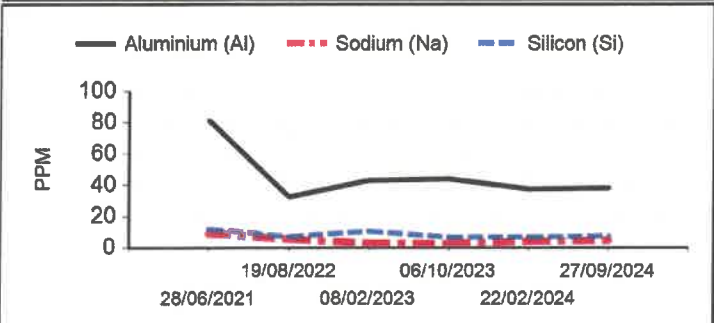
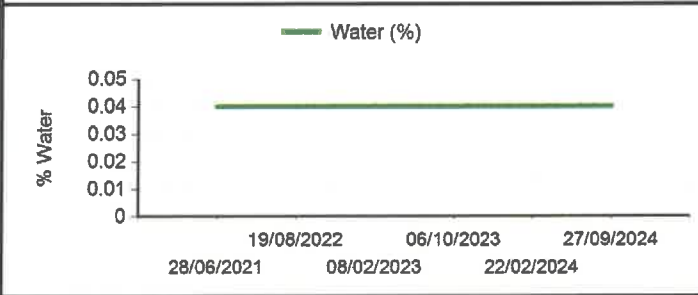
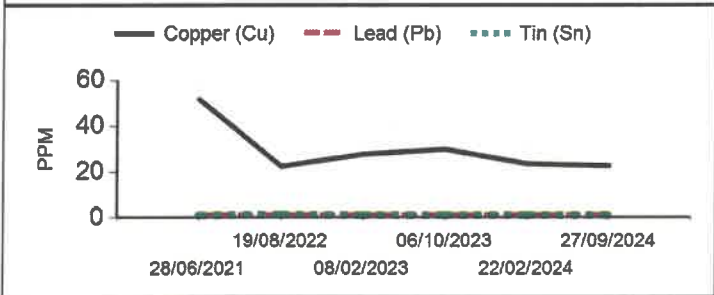
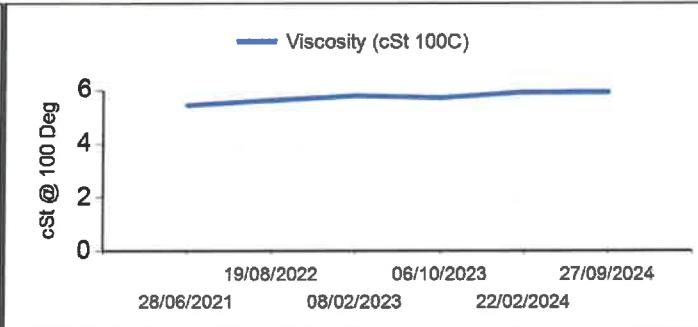
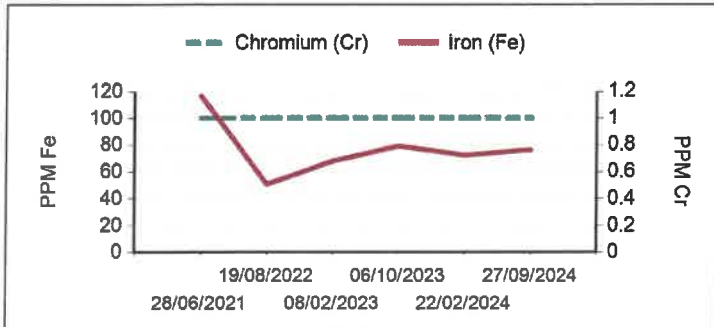
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 065F352

Transmission

Unit No. 1712

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD3JCJT5539

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	18-Sep-24	09-May-24	09-Jan-24	23-Mar-23	24-Oct-22	14-Jul-22
DATE RECEIVED	11-Oct-24	15-May-24	17-Jan-24	30-Mar-23	31-Oct-22	15-Aug-22
DATE REPORTED	14-Oct-24	16-May-24	19-Jan-24	05-Apr-23	02-Nov-22	16-Aug-22
LAB NO.	44023468891	44023335669	44023229559	44022978405	44022856767	44022798280
SIF NO.	704538866	702897560	702897525	701689924	700592852	700592832
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Not Applicable	Not Changed	Changed	Not Changed	Not Changed	Not Changed
WO NUMBER	Not Changed	Not Changed	Changed	Not Changed	Not Changed	Not Changed
Metals (ppm)						
Iron (Fe)	20	18	15	20	23	12
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	2	<1	2	<1	<1
Copper (Cu)	11	8	7	10	12	7
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	1	1	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	3	4	5	5	4
Sodium (Na)	1	<1	<1	<1	2	2
Potassium (K)	<1	<1	<1	<1	1	<1
Additives (ppm)						
Magnesium (Mg)	24	25	36	46	40	40
Calcium (Ca)	92	101	126	140	85	91
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	228	226	215	253	239	238
Zinc (Zn)	32	35	46	59	60	60
Molybdenum (Mo)	<1	1	1	2	3	2
Boron (B)	83	81	81	91	84	83
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.8	6.7	6.5	6.6	6.9	7.1
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	11	<10	<10	<10	<10	<10



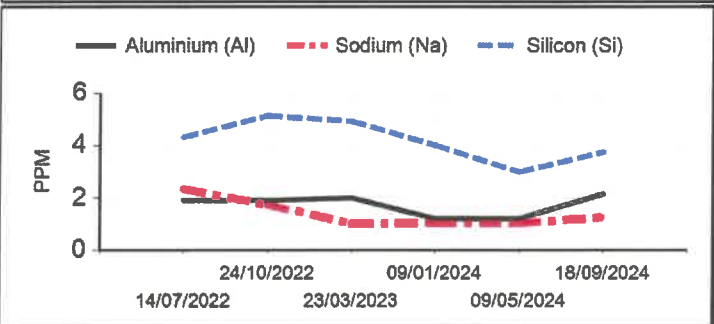
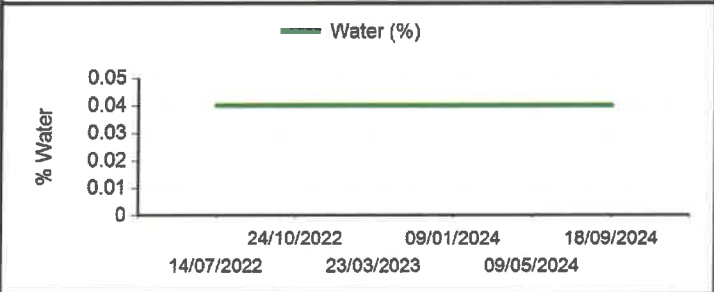
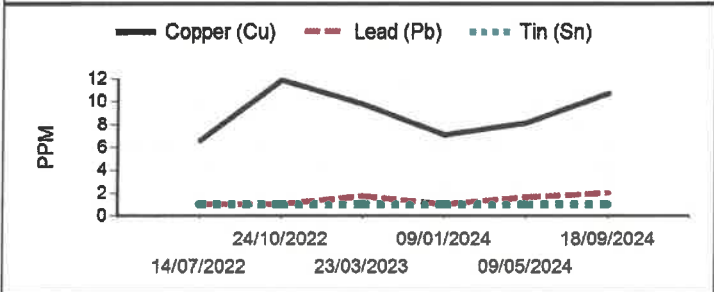
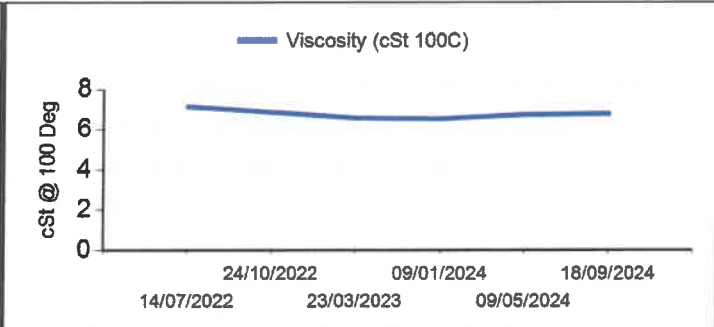
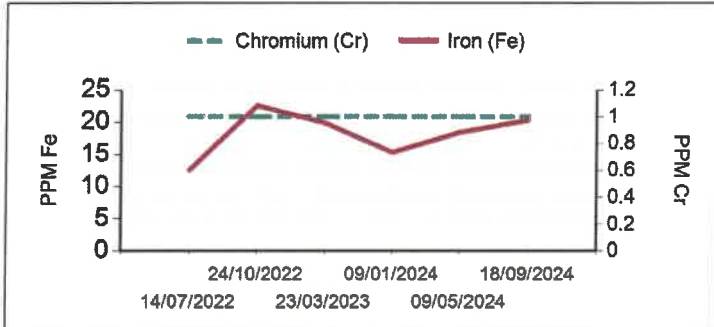
ANALYST: roldan.beldad

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 065F352



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 0650DAC

Diesel Engine

Unit No. 1712

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD3JCJT5539

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

	18-Sep-24	09-May-24	09-Jan-24	02-Jan-24	23-Mar-23	24-Oct-22
DATE SAMPLED	18-Sep-24	09-May-24	09-Jan-24	02-Jan-24	23-Mar-23	24-Oct-22
DATE RECEIVED	11-Oct-24	15-May-24	17-Jan-24	17-Jan-24	30-Mar-23	31-Oct-22
DATE REPORTED	13-Oct-24	16-May-24	19-Jan-24	25-Jan-24	07-Apr-23	01-Nov-22
LAB NO.	44023468890	44023335668	44023229565	44023229560	44022978404	44022856766
SIF NO.	704538867	702897559	702897526	702897519	701689925	700592851
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	6.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	9	10	21	26	23
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	3	<1	1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	1	<1	2	5	6	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	3	5	6	33	7	6
Sodium (Na)	1	<1	<1	3	<1	5
Potassium (K)	2	2	2	2	10	6
Additives (ppm)						
Magnesium (Mg)	125	363	729	507	774	778
Calcium (Ca)	2076	1715	1182	1400	1334	1358
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	905	818	669	680	722	741
Zinc (Zn)	1072	910	753	833	819	860
Molybdenum (Mo)	3	6	3	297	3	7
Boron (B)	14	34	71	20	51	45
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	13.2	11.4	12.8	9.6	11.9	13.0
Fuel (%)	<1	5.5	1.80	2.0	4.1	<1
PQ Index	<10	<10	<10	11	<10	<10
Soot (%) Infrared D7844	0.1	0.2	0.2	<0.1	0.4	0.3

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UIN 0650DAC

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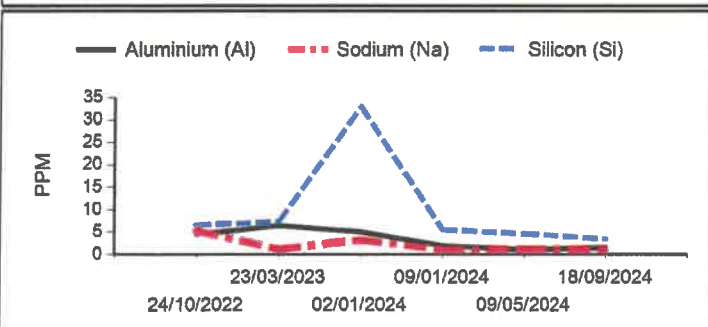
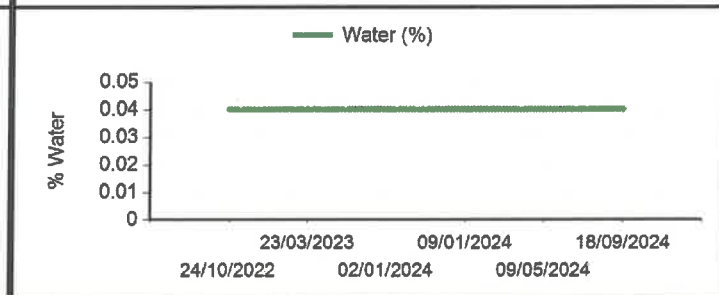
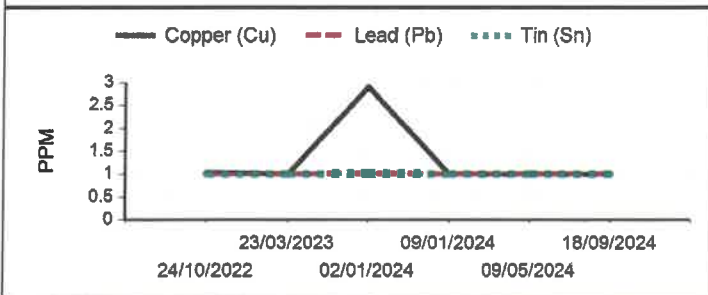
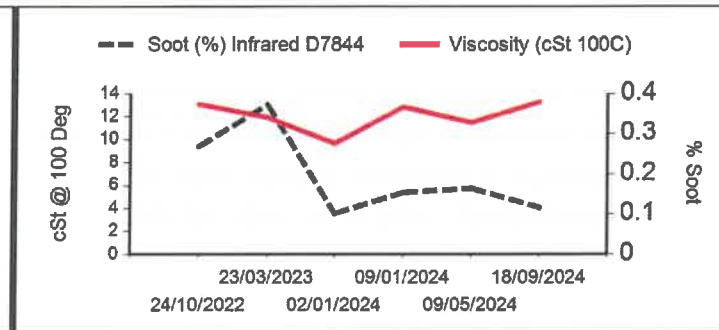
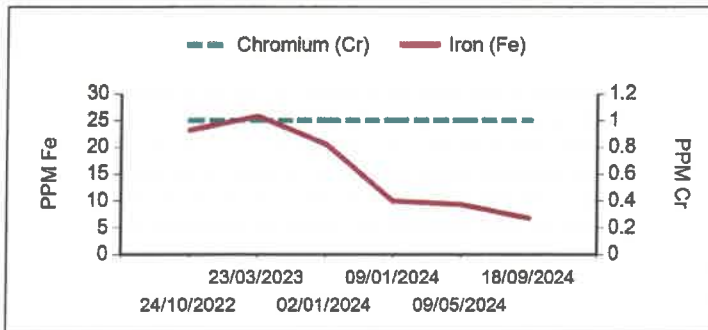
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42C4

Gasoline Engine

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FD FE4FNXRDD38867

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

Table with 3 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED. Values: 30-Aug-24, 11-Oct-24, 12-Oct-24; 12-Jul-24, 31-Jul-24, 02-Aug-24.

Table with 3 columns: LAB NO., SIF NO., TIME ON UNIT, TIME ON OIL, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER. Values: 44023468884, 704538868, 44023403748, 702897508; Unidentified, Unidentified, SAE 5W30, 8.0, Changed, Changed.

Table with 3 columns: Metals (ppm), Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V). Values: 10, <1, <1, 3, <1, 3, <1, <1, <1, <1.

Table with 3 columns: Contaminants (ppm), Silicon (Si), Sodium (Na), Potassium (K). Values: 18, 13, 3, 30, 7, 3.

Table with 3 columns: Additives (ppm), Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B). Values: 491, 1310, <1, 697, 852, 290, 21, 517, 1429, <1, 702, 904, 259, 36.

Table with 3 columns: Contaminants, Water (%), Coolant. Values: <0.05, No, <0.05, No.

Table with 3 columns: Physical Tests, Viscosity (cSt 100C), PQ Index. Values: 10.5, <10, 10.3, <10.



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal (green checkmark), Severe (red stop), Abnormal (wrench), Caution (yellow exclamation mark), and Normal (green checkmark).

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UIN 0AC42C4

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Southeast Asia

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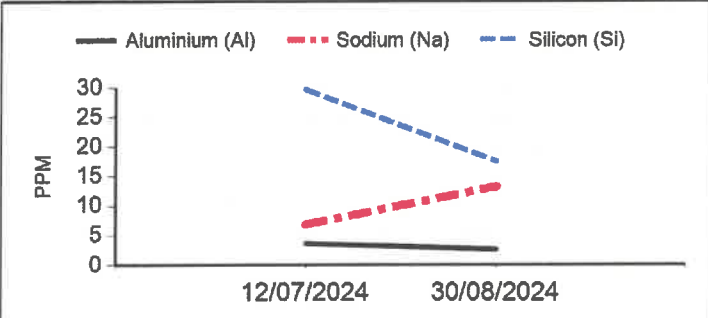
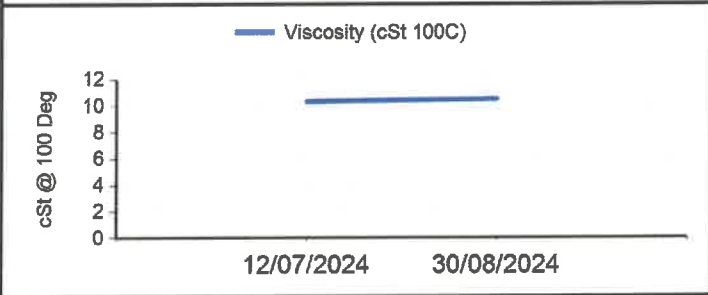
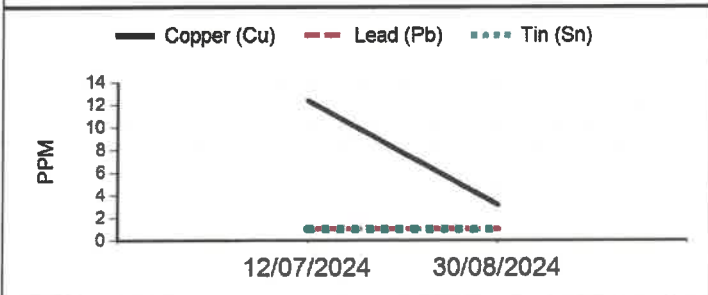
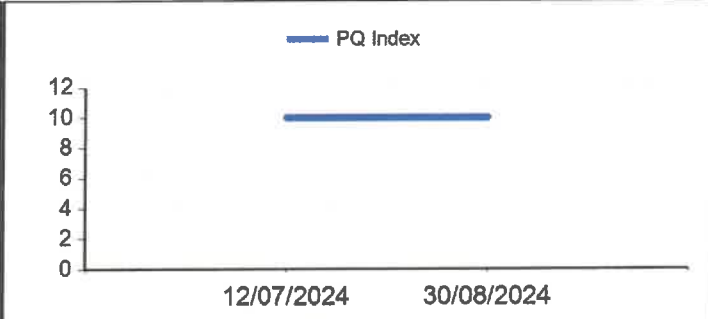
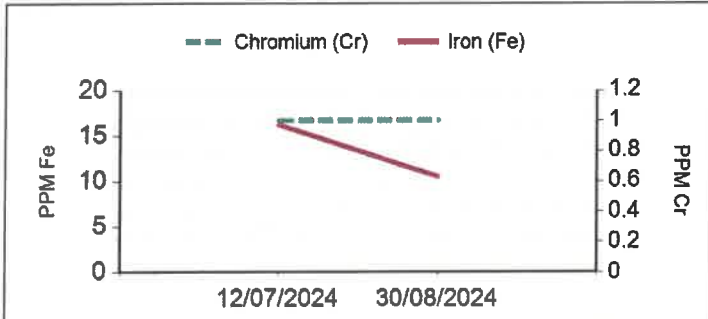
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42C5

Transmission

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FDPE4FNXRDD38867

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information at next sample submission. Action: Resample next service interval to further monitor.

DATE SAMPLED	30-Aug-24	12-Jul-24
DATE RECEIVED	11-Oct-24	31-Jul-24
DATE REPORTED	12-Oct-24	02-Aug-24

LAB NO.	44023468885	44023403754
SIF NO.	704538869	702897507
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown
OIL ADDED		
FILTER	mi	
OIL CHANGED	Not Changed	Not Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)	42	34
Chromium (Cr)	<1	<1
Lead (Pb)	<1	<1
Copper (Cu)	35	36
Tin (Sn)	1	<1
Aluminium (Al)	24	15
Nickel (Ni)	3	3
Silver (Ag)	<1	<1
Titanium (Ti)	<1	<1
Vanadium (V)	<1	<1

Contaminants (ppm)		
Silicon (Si)	6	6
Sodium (Na)	4	5
Potassium (K)	2	1

Additives (ppm)		
Magnesium (Mg)	2	1
Calcium (Ca)	118	122
Barium (Ba)	1	1
Phosphorus (P)	188	185
Zinc (Zn)	6	4
Molybdenum (Mo)	12	13
Boron (B)	69	71




Contaminants		
Water (%)	<0.05	<0.05

Physical Tests		
Viscosity (cSt 100C)	5.7	5.7
Solids (%)	<0.1	0.1

Additional		
PQ Index	14	13



ANALYST: Sam Smith Phoenix

LEGEND				
				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42C5

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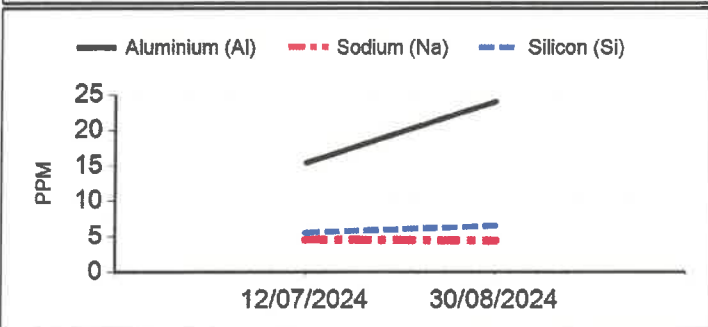
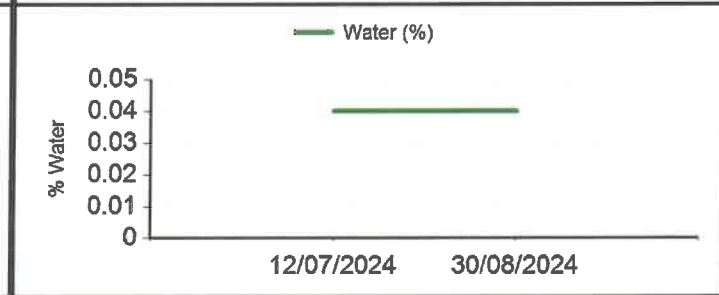
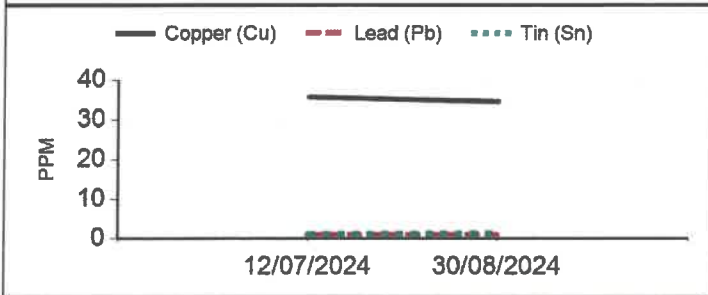
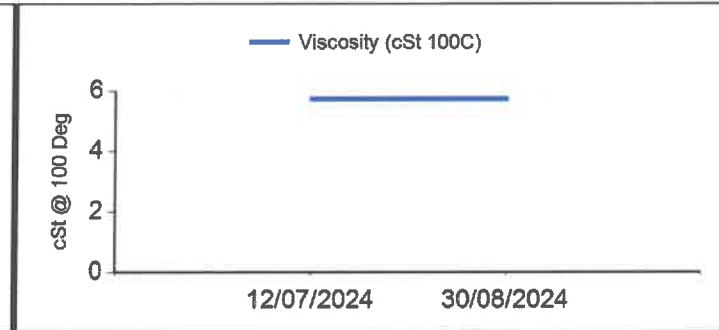
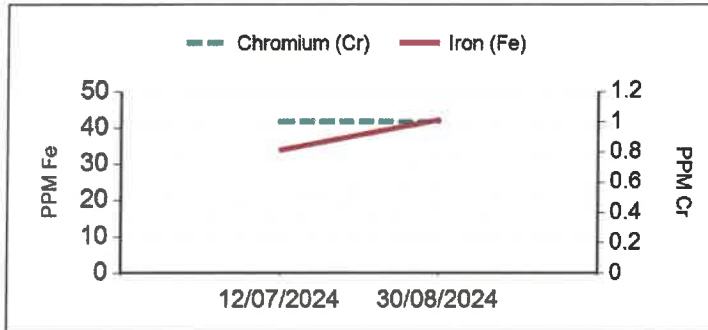
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 082147A

Transmission

Unit No. 1710

Unit:
Make
Model
Serial No. 57WMD2C61GM100432

Site MJ-CT/MV-1

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 10.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear levels remain constant. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

ANALYST: roldan.beldad

	LEGEND			
Abnormal				
	Severe	Abnormal	Caution	Normal

DATE SAMPLED	04-Oct-24	23-Feb-24	20-Oct-23	09-Feb-23	05-Aug-22	25-Jun-21
DATE RECEIVED	11-Oct-24	05-Mar-24	08-Nov-23	08-Mar-23	30-Aug-22	09-Aug-21
DATE REPORTED	14-Oct-24	06-Mar-24	10-Nov-23	13-Mar-23	01-Sep-22	11-Aug-21
LAB NO.	44023468883	44023270767	44023169864	44022956871	44022810871	44022532669
SIF NO.	704538871	702897532	701689943	700592804	700592789	38635078
TIME ON UNIT						
TIME ON OIL	mi					10000
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt		3.0	3.0	-	3.0
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Changed	Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	77	79	75	82	64	125
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	2	<1
Copper (Cu)	18	22	22	27	26	48
Tin (Sn)	1	2	2	1	2	2
Aluminium (Al)	48	51	47	49	40	65
Nickel (Ni)	2	3	2	3	2	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	8	7	7	11	6	9
Sodium (Na)	4	4	4	3	5	9
Potassium (K)	1	<1	<1	1	2	2
Additives (ppm)						
Magnesium (Mg)	2	5	2	4	4	1
Calcium (Ca)	119	152	118	131	136	109
Barium (Ba)	<1	<1	<1	<1	<1	1
Phosphorus (P)	189	241	189	211	204	174
Zinc (Zn)	6	12	6	10	8	8
Molybdenum (Mo)	5	7	5	9	8	15
Boron (B)	68	76	66	75	69	51
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	5.7	5.7	5.7	5.7	5.7	5.5
PQ Index	25	21	22	15	22	29

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UIN 082147A

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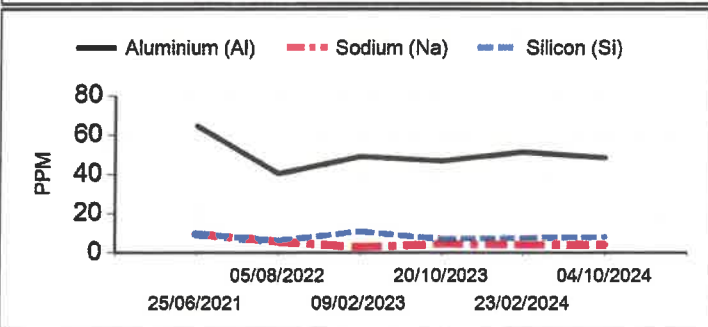
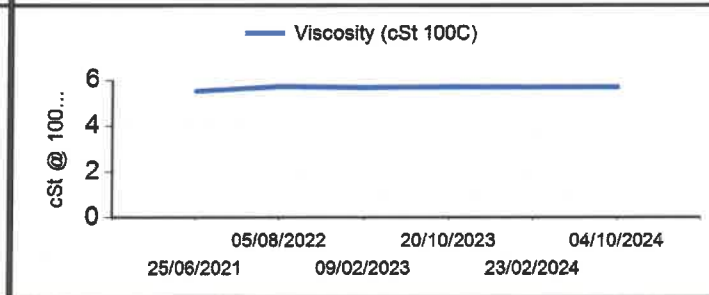
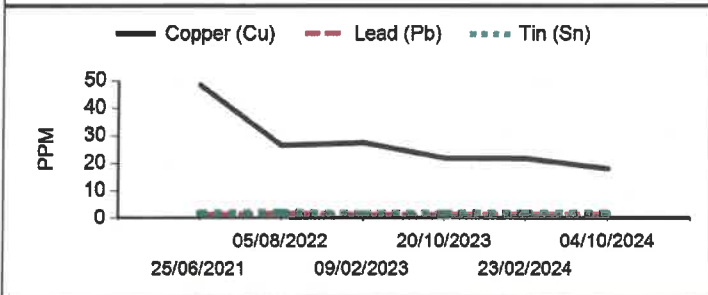
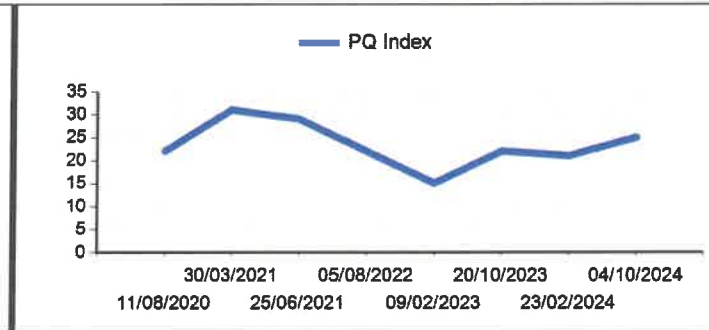
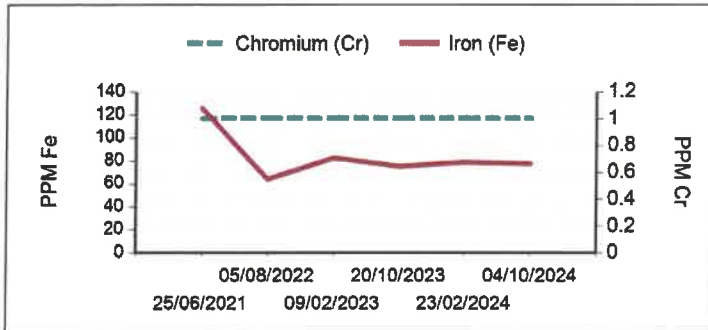
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

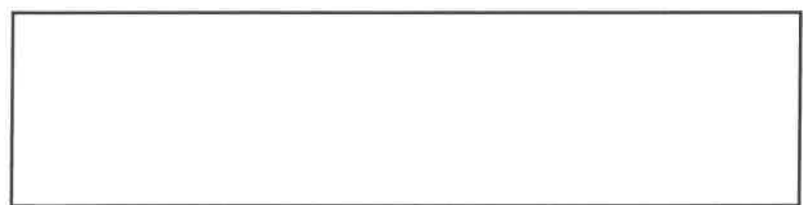
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06C6B94

Gasoline Engine

Unit No. 1710

Unit:
Make
Model
Serial No. 57WMD2C61GM100432

Site MJ-CT/MV-1

Compartment:
Name Gasoline Engine

Make
Model
Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal				
	Severe	Abnormal	Caution	Normal

	04-Oct-24	23-Feb-24	20-Oct-23	09-Feb-23	05-Aug-22	04-Feb-22
DATE SAMPLED	04-Oct-24	23-Feb-24	20-Oct-23	09-Feb-23	05-Aug-22	04-Feb-22
DATE RECEIVED	11-Oct-24	05-Mar-24	08-Nov-23	08-Mar-23	30-Aug-22	07-Mar-22
DATE REPORTED	12-Oct-24	06-Mar-24	10-Nov-23	13-Mar-23	31-Aug-22	09-Mar-22
LAB NO.	44023468882	44023270766	44023169863	44022956870	44022810872	44022677604
SIF NO.	704538870	702897531	701689942	700592799	700592790	39776193
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND		Ford	Ford	Ford	Ford	Ford
OIL TYPE		Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE		SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt		6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	11	10	14	16	7	7
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	14	14	23	30	17	12
Tin (Sn)	<1	<1	<1	<1	1	<1
Aluminium (Al)	2	3	5	3	3	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	14	19	25	14	14
Sodium (Na)	7	4	6	<1	4	6
Potassium (K)	2	<1	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	473	550	481	510	494	489
Calcium (Ca)	1280	1554	1308	1396	1388	1341
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	631	800	656	697	620	660
Zinc (Zn)	765	908	789	835	766	813
Molybdenum (Mo)	286	330	274	297	279	197
Boron (B)	21	35	21	20	53	61
Contaminants						
Water (%)	<0.05	<0.05	0.10	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	7.8	8.3	8.5	8.1	7.8	8.2
PQ Index	<10	<10	10	<10	<10	<10



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UIN 06C6B94

U.S. Laboratories

Atlanta, Georgia - 420 **Valley View, Ohio - 410**
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 Building 200 Suite 245 Valley View, OH 44125
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 800.394.3669

Kansas City, Kansas - 430 **Phoenix, Arizona - 440**
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 Kansas City, KS 66115 Phoenix, AZ 85017
 800.332.8055 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
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 Burlington, ON L7L5Y7 Edmonton, AB T6N 1M9
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 877.835.8437

International Locations

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South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand
 Wellington

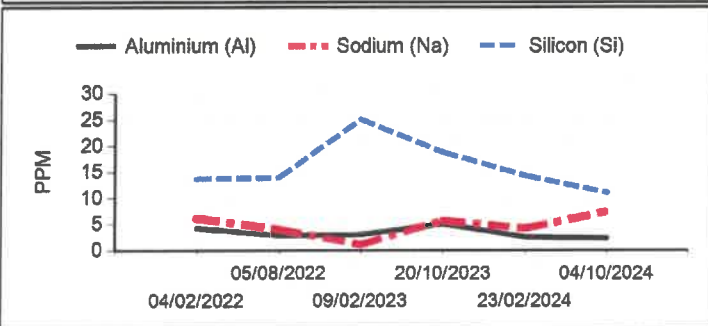
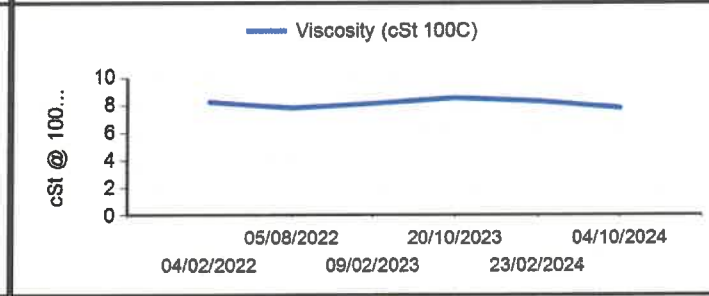
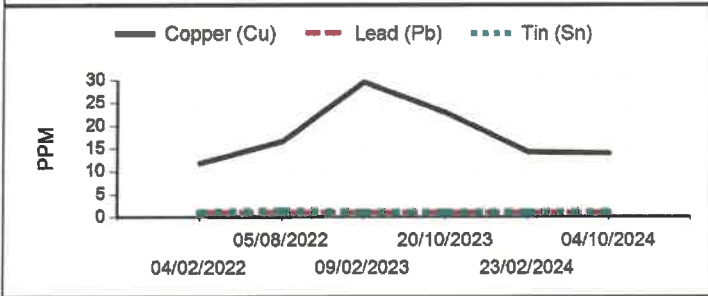
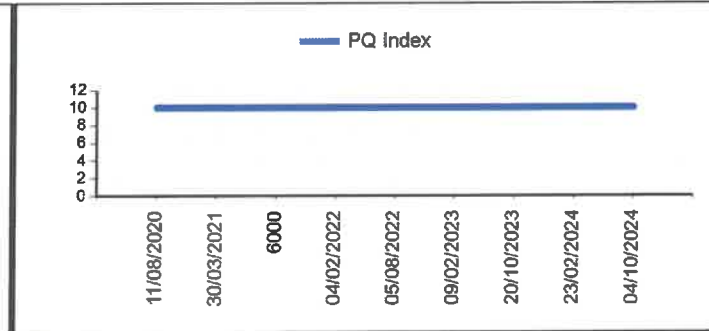
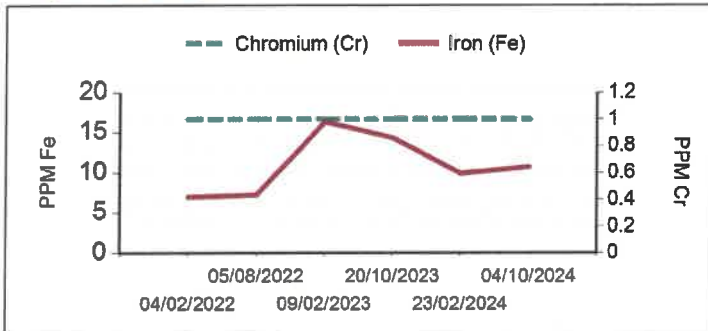
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06AB48B

Gasoline Engine

Unit No. 1709

Unit:
Make
Model
Serial No. 57WMD2C68GM100346

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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	27-Sep-24	22-Feb-24	06-Oct-23	08-Feb-23	19-Aug-22	09-Feb-22
DATE SAMPLED	27-Sep-24	22-Feb-24	06-Oct-23	08-Feb-23	19-Aug-22	09-Feb-22
DATE RECEIVED	11-Oct-24	05-Mar-24	20-Oct-23	08-Mar-23	15-Sep-22	07-Mar-22
DATE REPORTED	12-Oct-24	06-Mar-24	23-Oct-23	13-Mar-23	16-Sep-22	09-Mar-22
LAB NO.	44023468886	44023270762	44023153374	44022956862	44022821207	44022677603
SIF NO.	704538873	702897537	701689936	700592801	700592860	39776197
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0		6.0	6.0	6.0
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	15	14	19	16	6	7
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	9	14	15	7	12
Tin (Sn)	<1	<1	<1	1	2	<1
Aluminium (Al)	3	3	6	3	3	4
Nickel (Ni)	1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	14	14	20	19	11	14
Sodium (Na)	12	5	3	<1	5	6
Potassium (K)	2	<1	3	<1	2	<1
Additives (ppm)						
Magnesium (Mg)	488	568	578	515	444	480
Calcium (Ca)	1337	1636	1526	1410	1206	1328
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	672	845	764	697	607	655
Zinc (Zn)	810	951	929	831	722	807
Molybdenum (Mo)	289	341	324	288	251	195
Boron (B)	16	27	24	24	65	61
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.7	8.5	8.9	7.9	7.7	8.2
PQ Index	<10	10	<10	<10	<10	<10



UIN 06AB48B

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New Zealand

Wellington

Southeast Asia

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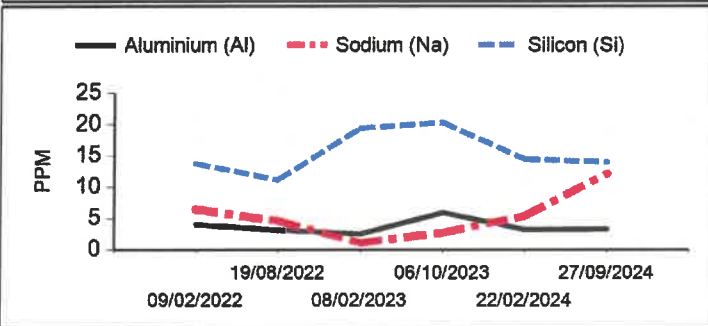
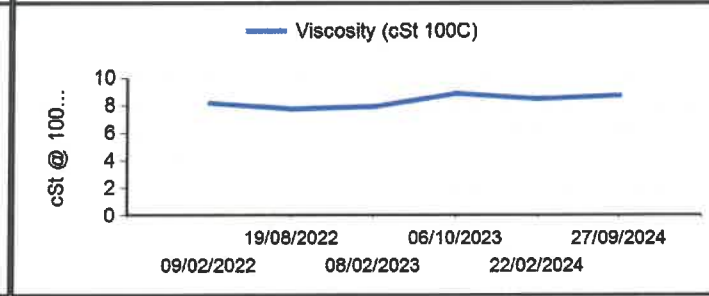
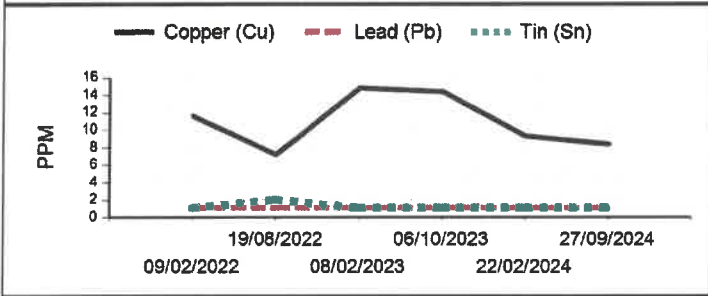
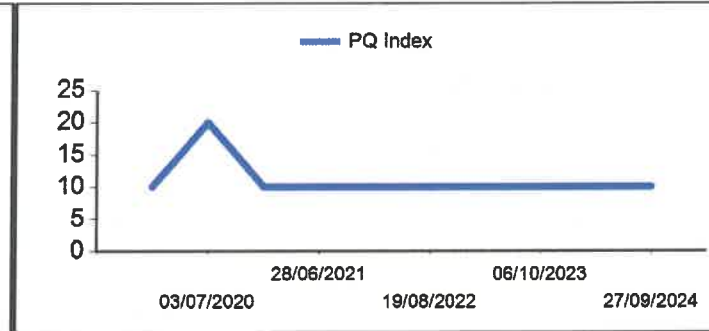
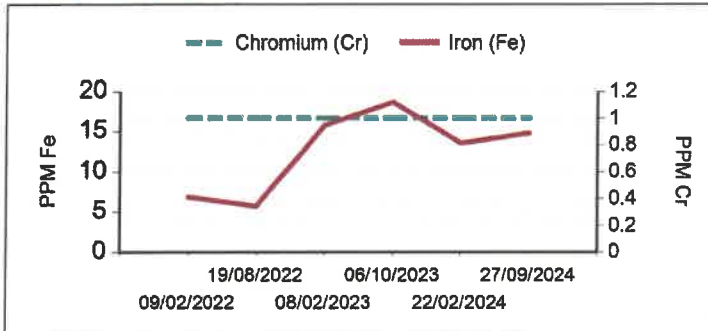
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06A893A

Transmission

Unit No. 1711

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFDIJCJT5540

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	28-Aug-24	28-Dec-23	09-Aug-23	31-Mar-23	05-Dec-22	04-Aug-22
DATE RECEIVED	12-Sep-24	17-Jan-24	29-Aug-23	23-May-23	29-Dec-22	30-Aug-22
DATE REPORTED	13-Sep-24	19-Jan-24	30-Aug-23	26-May-23	30-Dec-22	01-Sep-22
LAB NO.	44023441485	44023229564	44023107506	44023023683	44022901828	44022810878
SIF NO.	702897496	702897522	701689904	701689961	700592817	700592795
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED			8.0			
FILTER	mi					
OIL CHANGED	Not Changed	Not Changed	Changed	Not Changed	Not Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	28	29	29	34	33	28
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	<1	1	<1	1	6
Copper (Cu)	12	10	8	10	9	8
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	2	3	3	3	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	5	4	4	5	5
Sodium (Na)	1	<1	<1	<1	<1	1
Potassium (K)	<1	<1	<1	<1	1	<1
Additives (ppm)						
Magnesium (Mg)	29	27	39	41	38	33
Calcium (Ca)	103	96	131	123	119	99
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	235	218	243	242	244	227
Zinc (Zn)	41	38	56	63	58	58
Molybdenum (Mo)	1	1	1	2	2	2
Boron (B)	76	84	77	78	82	83
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.8	6.7	6.5	6.8	6.7	6.8
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	16	10	10	12	16	10

ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 06A893A

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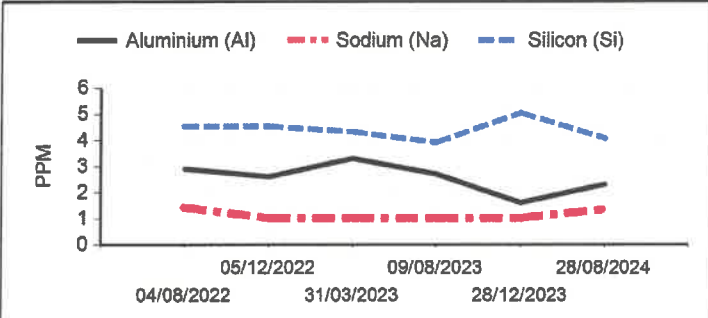
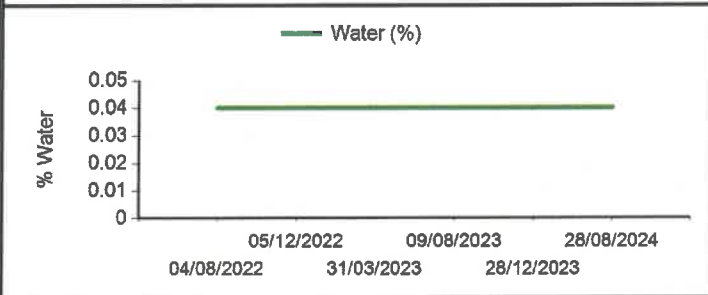
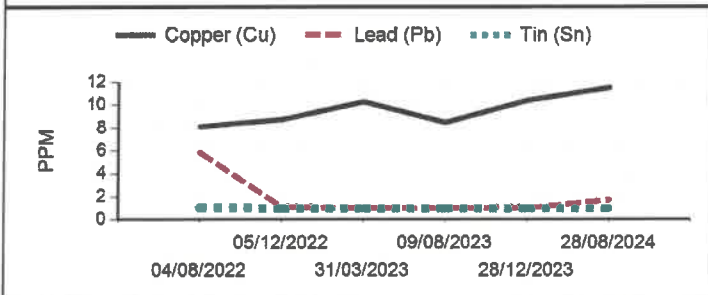
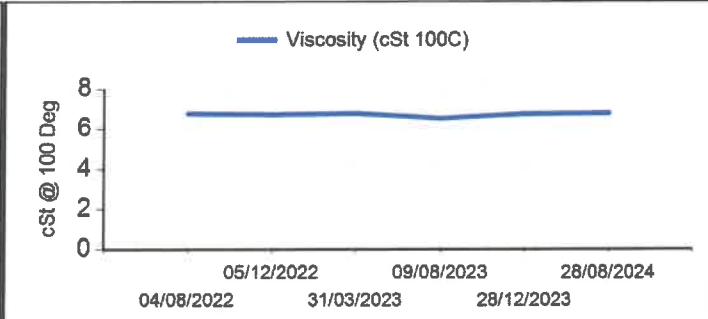
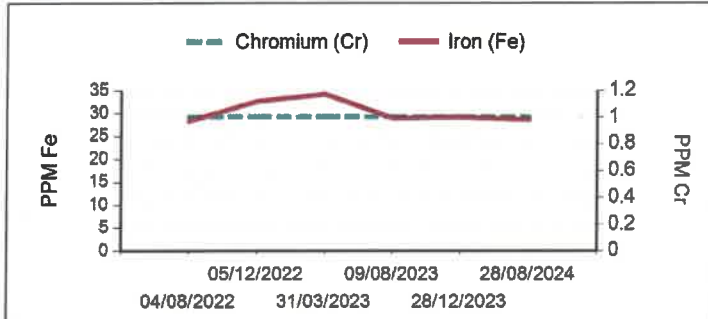
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0650DA1

Diesel Engine

Unit No. 1711

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFDIJCJT5540

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.

Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	28-Aug-24	28-Dec-23	09-Aug-23	31-Mar-23	05-Dec-22	04-Aug-22
DATE RECEIVED	12-Sep-24	17-Jan-24	29-Aug-23	23-May-23	29-Dec-22	30-Aug-22
DATE REPORTED	13-Sep-24	19-Jan-24	30-Aug-23	24-May-23	03-Jan-23	01-Sep-22
LAB NO.	44023441484	44023229561	44023107505	44023023682	44022901827	44022810877
SIF NO.	702897495	702897521	701689905	701689960	700592818	700592796
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	12	32	23	13	45	15
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	2	1	1
Tin (Sn)	<1	<1	1	<1	3	8
Aluminium (Al)	4	8	14	9	29	55
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	5	8	6	4	7	5
Sodium (Na)	3	1	2	<1	<1	3
Potassium (K)	5	6	6	3	6	3
Additives (ppm)						
Magnesium (Mg)	765	761	877	703	826	674
Calcium (Ca)	1310	1250	1388	1207	1494	1280
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	777	697	784	691	802	633
Zinc (Zn)	896	797	928	787	897	747
Molybdenum (Mo)	11	6	4	3	9	10
Boron (B)	86	48	52	76	53	78
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	13.3	12.9	12.9	12.7	12.8	12.6
Fuel (%)	<1	1.60	1.40	1.50	1.10	1.70
PQ Index	10	<10	<10	10	13	<10
Soot (%) Infrared D7844	0.1	0.3	<0.1	<0.1	0.3	0.2



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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Wellington

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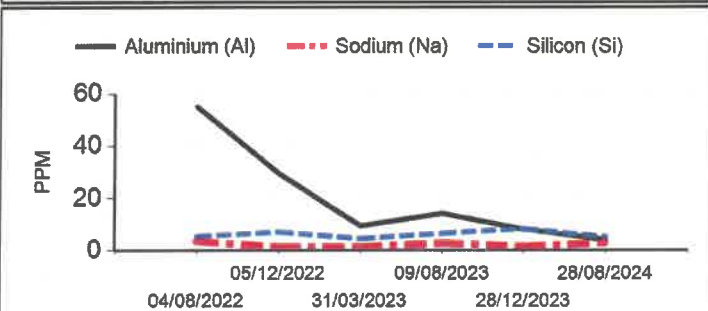
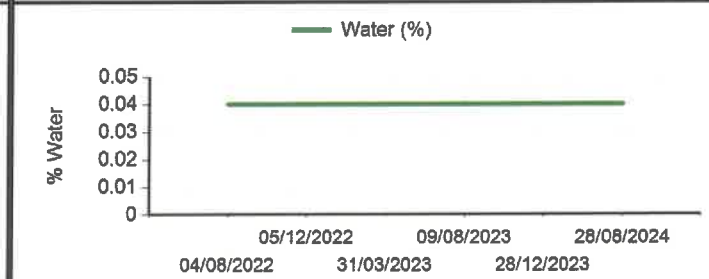
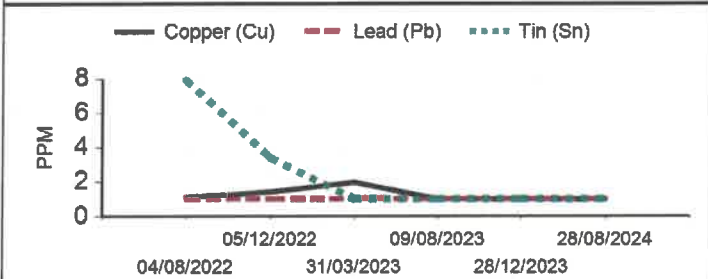
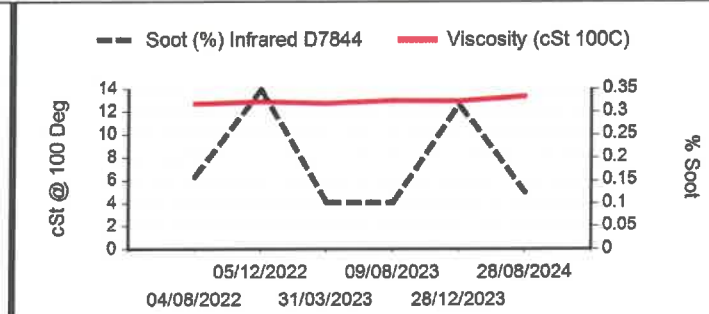
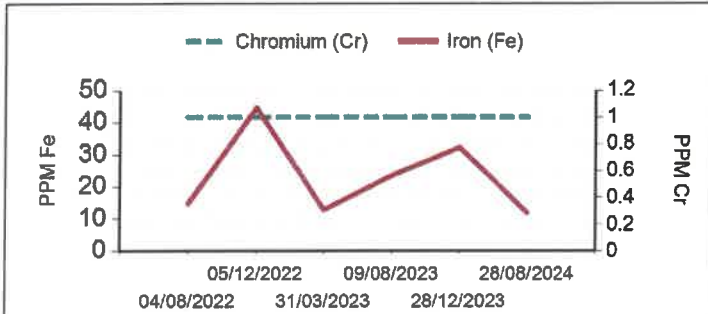
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter
 Image

Filter patch test is not performed Contact laboratory for more information

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UIN 09C4E6A

Gasoline Engine

Unit No. 2203

Unit:
Make Ford
Model E-450
Serial No. 1FD4E45XGDC13192

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	23-Aug-24	29-Jan-24	27-Sep-23	11-May-23	29-Dec-22
DATE RECEIVED	12-Sep-24	13-Feb-24	20-Oct-23	23-May-23	19-Jan-23
DATE REPORTED	13-Sep-24	14-Feb-24	23-Oct-23	26-May-23	20-Jan-23
LAB NO.	44023441476	44023253086	44023153284	44023023686	44022918308
SIF NO.	702897493	702897516	701689931	701689965	700592870
TIME ON UNIT					
TIME ON OIL					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	6.0	6.0	6.0		6.0
FILTER					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed
WO NUMBER					
Metals (ppm)					
Iron (Fe)	19	23	21	23	6
Chromium (Cr)	<1	1	1	2	<1
Lead (Pb)	<1	<1	<1	<1	<1
Copper (Cu)	<1	1	2	2	2
Tin (Sn)	<1	<1	<1	<1	<1
Aluminium (Al)	3	5	6	3	2
Nickel (Ni)	<1	1	1	1	<1
Silver (Ag)	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	2	79
Vanadium (V)	<1	<1	<1	<1	<1
Contaminants (ppm)					
Silicon (Si)	13	16	21	13	9
Sodium (Na)	395	194	6	29	2
Potassium (K)	13	4	2	<1	1
Additives (ppm)					
Magnesium (Mg)	517	588	604	534	484
Calcium (Ca)	1357	1467	1595	1446	1279
Barium (Ba)	<1	<1	<1	<1	<1
Phosphorus (P)	709	769	832	705	645
Zinc (Zn)	892	967	1018	900	750
Molybdenum (Mo)	333	325	348	297	14
Boron (B)	33	26	16	17	142
Contaminants					
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No
Physical Tests					
Viscosity (cSt 100C)	10.6	11.3	12.8	11.3	8.8
PQ Index	15	12	<10	<10	<10



ANALYST: paul.kittrick

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 09C4E6A

U.S. Laboratories

Atlanta, Georgia - 420

5300 OakBrook Parkway
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800.726.5400

Kansas City, Kansas - 430

935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440

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Southeast Asia

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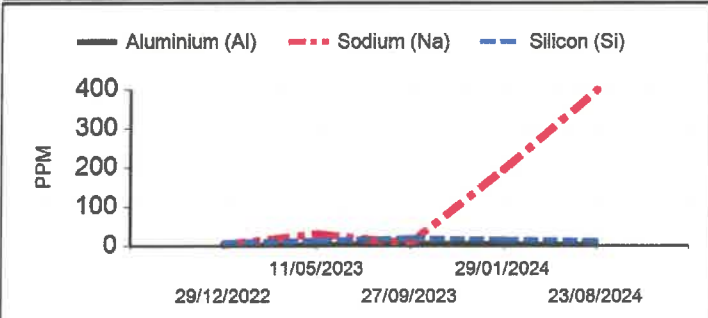
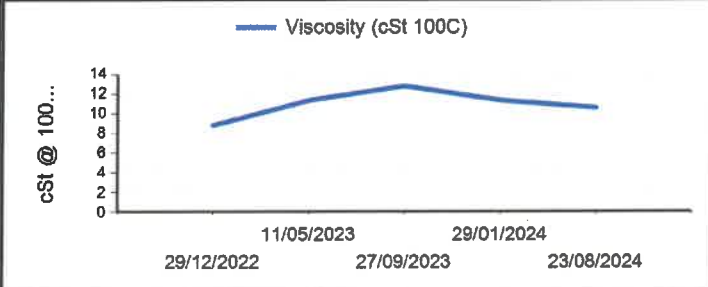
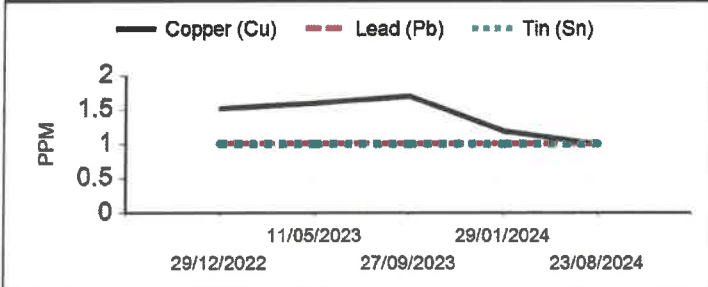
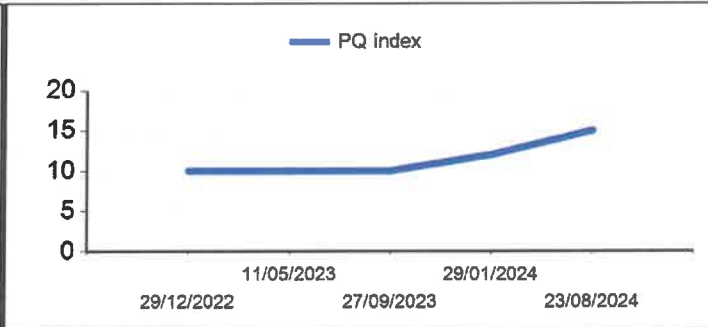
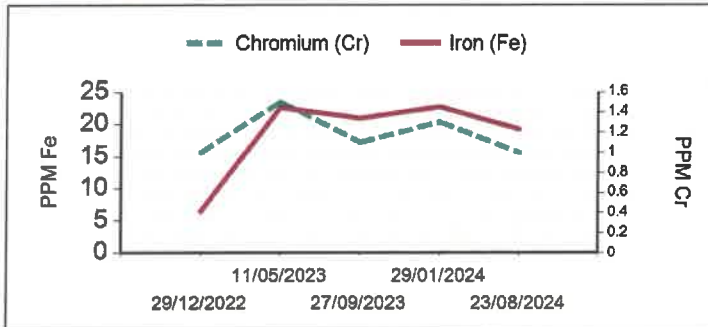
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glyco:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter
Image

Filter patch test is not performed Contact laboratory for more information

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UIN 09C4E6B

Transmission

Unit No. 2203

Unit:
Make Ford
Model E-450
Serial No. 1FDSE45XGDC13192

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity:

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	23-Aug-24	29-Jan-24	27-Sep-23	11-May-23	29-Dec-22
DATE RECEIVED	12-Sep-24	13-Feb-24	20-Oct-23	23-May-23	19-Jan-23
DATE REPORTED	13-Sep-24	14-Feb-24	23-Oct-23	26-May-23	20-Jan-23
LAB NO.	44023441477	44023253087	44023153283	44023023687	44022918309
SIF NO.	702897494	702897515	701689930	701689964	700592869
TIME ON UNIT					
TIME ON OIL					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	Unidentified
OIL GRADE	ATF	ATF	ATF	ATF	Unknown
OIL ADDED			6.0		6.0
FILTER					
OIL CHANGED	Not Changed	Not Changed	Changed	Not Changed	Changed
WO NUMBER					
Metals (ppm)					
Iron (Fe)	13	24	27	23	23
Chromium (Cr)	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1
Copper (Cu)	3	7	10	10	12
Tin (Sn)	<1	<1	<1	<1	<1
Aluminium (Al)	4	8	8	6	6
Nickel (Ni)	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1
Contaminants (ppm)					
Silicon (Si)	5	6	4	4	6
Sodium (Na)	2	5	<1	3	7
Potassium (K)	<1	<1	3	1	3
Additives (ppm)					
Magnesium (Mg)	1	7	4	5	3
Calcium (Ca)	142	168	180	202	231
Barium (Ba)	<1	<1	<1	<1	<1
Phosphorus (P)	231	310	374	401	532
Zinc (Zn)	4	16	12	13	9
Molybdenum (Mo)	<1	4	<1	2	1
Boron (B)	81	119	150	171	255
Contaminants					
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests					
Viscosity (cSt 100C)	5.8	5.9	6.0	5.8	5.5
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1
Additional					
PQ Index	12	10	11	<10	<10

ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 09C4E6B

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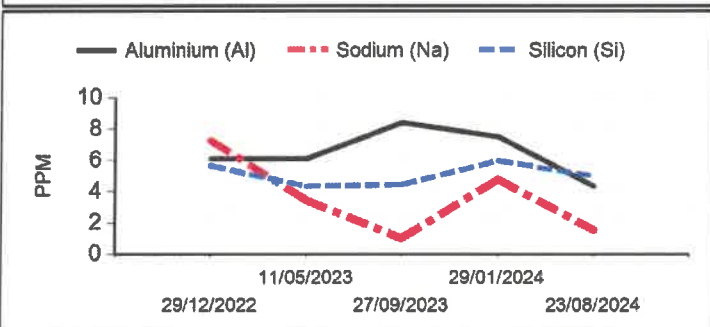
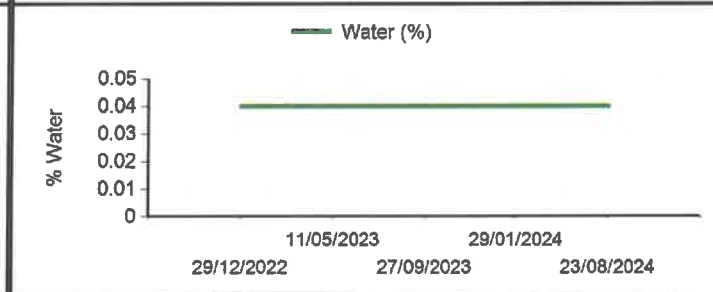
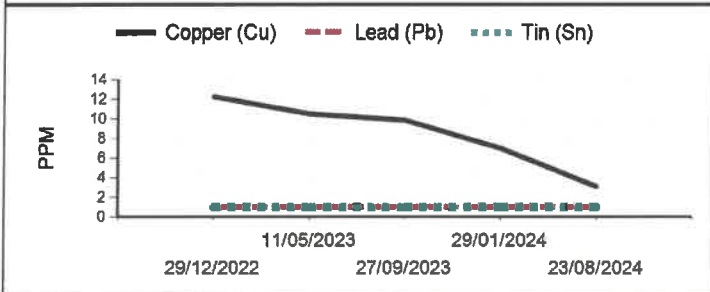
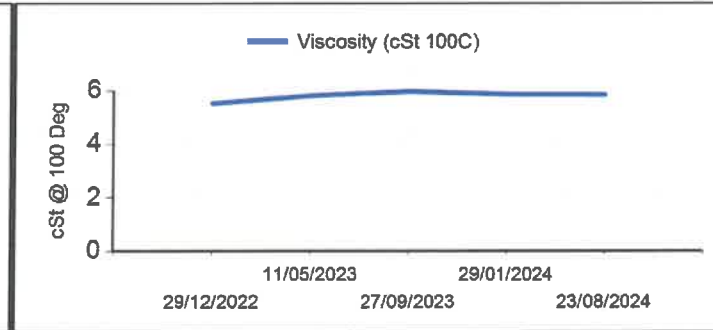
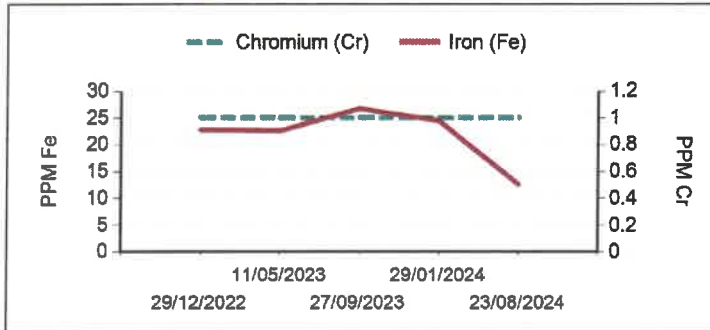
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0808BCA

Transmission

Unit No. 1906

Unit:
Make Ford
Model Transit
Serial No. 1FDES8PM0KKB17068

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

Torque converter/pump wear indicated. Nickel wear rate elevated. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Viscosity within specified operating range. Action: Advise carry out transmission performance pressure checks. As oil already changed, resample after corrective action to further monitor.

DATE SAMPLED	22-Aug-24	01-May-24	02-Jan-24	05-Jul-23	24-Jan-23	18-Oct-22
DATE RECEIVED	12-Sep-24	15-May-24	17-Jan-24	14-Jul-23	01-Feb-23	31-Oct-22
DATE REPORTED	13-Sep-24	16-May-24	19-Jan-24	18-Jul-23	03-Feb-23	02-Nov-22
LAB NO.	44023441481	44023335667	44023229563	44023069483	44022929707	44022856765
SIF NO.	702897492	702897561	702897520	701688982	700592807	700592848
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL TYPE	Mercon LV	Mercon LV	Mercon LV	Mercon LV	Mercon LV	Mercon LV
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	130	101	110	93	86	63
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	1	<1	<1	<1	<1
Copper (Cu)	14	14	13	16	18	13
Tin (Sn)	1	1	<1	2	1	<1
Aluminium (Al)	82	60	50	41	35	20
Nickel (Ni)	6	4	5	5	5	3
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	16	12	12	11	8	7
Sodium (Na)	3	<1	<1	<1	<1	3
Potassium (K)	<1	<1	<1	1	<1	2
Additives (ppm)						
Magnesium (Mg)	2	3	5	2	3	2
Calcium (Ca)	130	130	125	141	131	136
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	212	216	198	211	237	229
Zinc (Zn)	6	8	9	5	6	5
Molybdenum (Mo)	3	3	4	4	5	4
Boron (B)	67	70	76	85	71	83
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.6	5.7	5.7	5.7	5.7	5.6
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	25	18	23	23	16	16

ANALYST: aaron.cotton

LEGEND

Severe	Severe	Abnormal	Caution	Normal

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UIN 0808BCA

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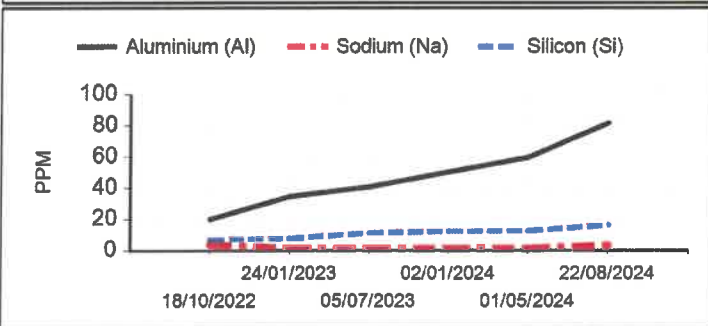
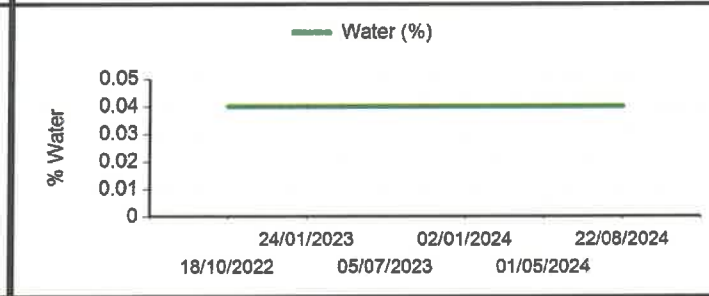
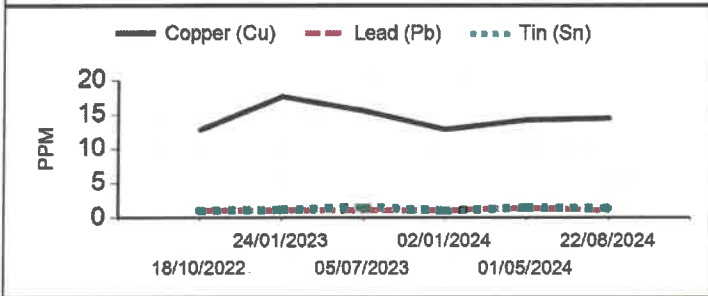
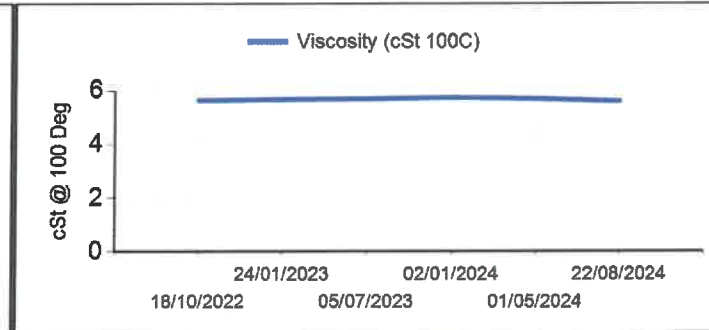
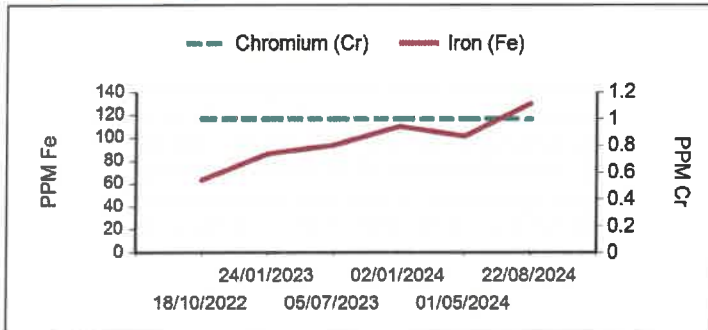
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 07D2D8C

Gasoline Engine

Unit No. 1906

Unit:
Make Ford
Model Transit
Serial No. 1FDES8PM0KKB17068

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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DATE SAMPLED	22-Aug-24	01-May-24	05-Jul-23	24-Jan-23	18-Oct-22	03-Jan-22
DATE RECEIVED	12-Sep-24	15-May-24	14-Jul-23	01-Feb-23	31-Oct-22	24-Feb-22
DATE REPORTED	13-Sep-24	16-May-24	18-Jul-23	03-Feb-23	02-Nov-22	01-Mar-22
LAB NO.	44023441480	44023335666	44023069482	44022929706	44022856764	44022669779
SIF NO.	702897491	702897562	701689983	700592808	700592847	39776234
TIME ON UNIT	mi					6000
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	11	15	17	19	29	15
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	2	3	7	58	1
Tin (Sn)	<1	<1	<1	<1	2	<1
Aluminium (Al)	4	3	5	7	13	5
Nickel (Ni)	1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	19	26	35	24	154	19
Sodium (Na)	11	4	<1	2	26	6
Potassium (K)	2	<1	1	2	24	<1
Additives (ppm)						
Magnesium (Mg)	509	486	503	470	540	514
Calcium (Ca)	1386	1403	1369	1211	1073	1374
Barium (Ba)	<1	<1	<1	<1	11	<1
Phosphorus (P)	729	724	707	706	719	700
Zinc (Zn)	897	848	824	849	833	882
Molybdenum (Mo)	312	288	295	148	105	200
Boron (B)	21	17	24	21	51	21
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.5	8.5	8.6	8.5	8.4	8.5
PQ Index	10	<10	<10	<10	<10	11



UIN 07D2D8C

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

Burlington, Ontario - 450
 5036 South Service Rd.
 Burlington, ON L7L5Y7
 905 332 9559

Edmonton, Alberta - 402
 9450 17 Ave NW
 Edmonton, AB T6N 1M9
 +1 (780) 483-1036

Sales & Marketing

Houston, Texas

10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

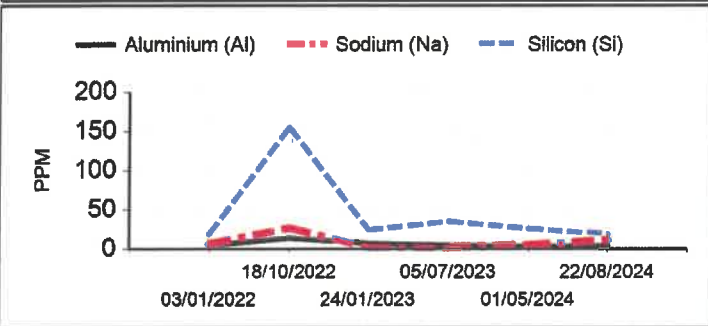
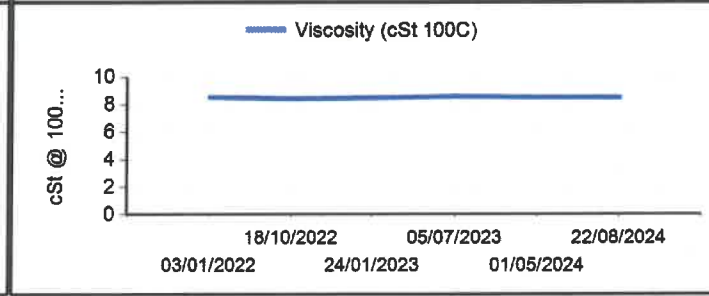
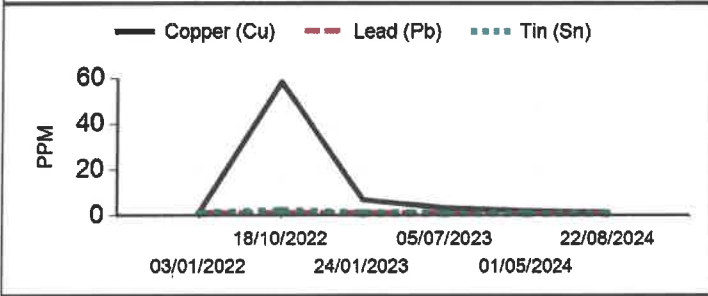
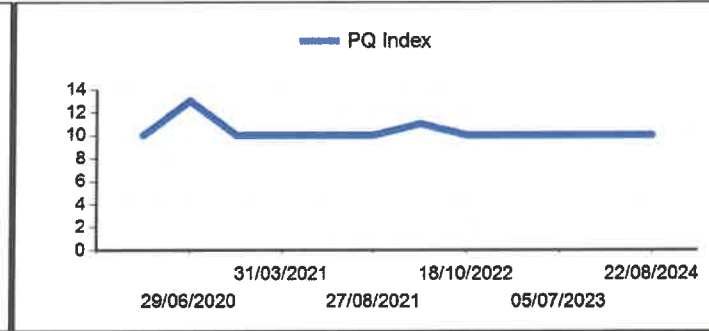
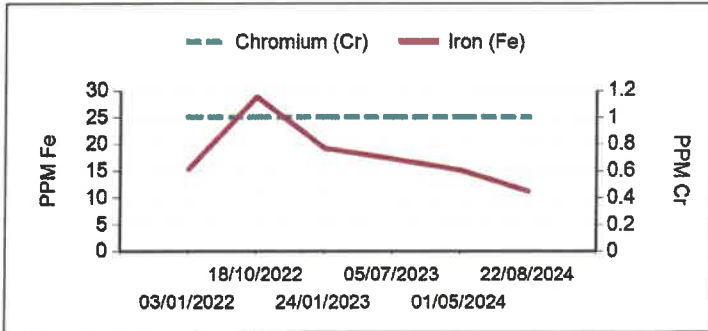
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD9A12

Transmission

Unit No. 2402

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4FN5RDD39215

Site

Compartment:

Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

Torque converter/pump wear indicated. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Advise carry out transmission performance pressure checks. Drain oil from unit if not already changed. Resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

Legend box with icons for Abnormal, Severe, Abnormal, Caution, Normal

Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their respective dates.

Table with 3 columns: LAB NO., SIF NO., TIME ON UNIT, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER.

Table with 2 columns: Metals (ppm) and values for Iron, Chromium, Lead, Copper, Tin, Aluminium, Nickel, Silver, Titanium, Vanadium.

Table with 2 columns: Contaminants (ppm) and values for Silicon, Sodium, Potassium.

Table with 2 columns: Additives (ppm) and values for Magnesium, Calcium, Barium, Phosphorus, Zinc, Molybdenum, Boron.

Table with 2 columns: Contaminants and Water (%).

Table with 2 columns: Physical Tests and values for Viscosity, Solids.

Table with 2 columns: Additional and PQ Index.





UIN 0AD9A12

U.S. Laboratories

Atlanta, Georgia - 420 **Valley View, Ohio - 410**
 5300 OakBrook Parkway 6180 Halle Dr. Suite D
 Building 200 Suite 245 Valley View, OH 44125
 Norcross, GA 30093 800.726.5400
 800.394.3669

Kansas City, Kansas - 430 **Phoenix, Arizona - 440**
 935 Sunshine Road 3319 West Earll Drive
 Kansas City, KS 66115 Phoenix, AZ 85017
 800.332.8055 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

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 5036 South Service Rd. 9450 17 Ave NW
 Burlington, ON L7L5Y7 Edmonton, AB T6N 1M9
 905.332.9559 +1 (780) 483-1036

Sales & Marketing

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 10450 Stancliff Road, Suite 210
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 877.835.8437

International Locations

Australia
 Brisbane, Perth, Sydney, Muswellbrook

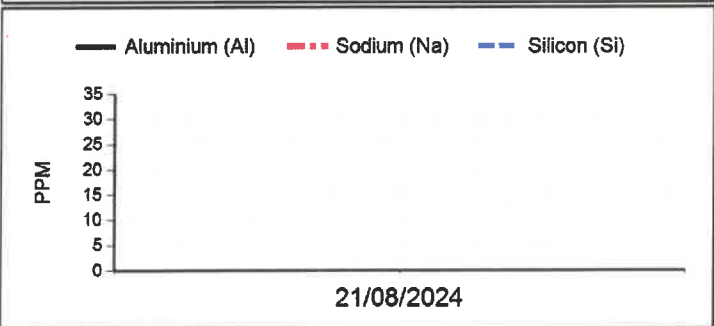
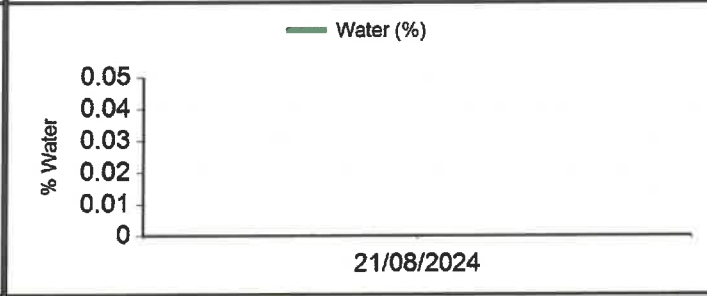
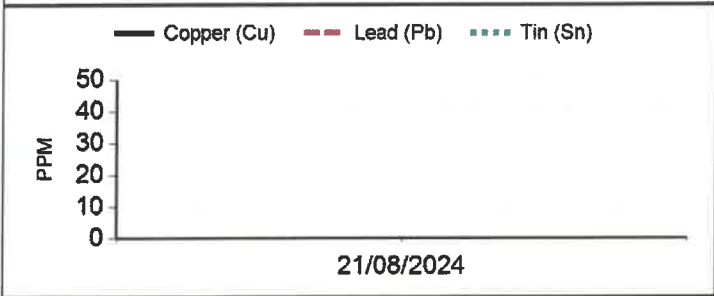
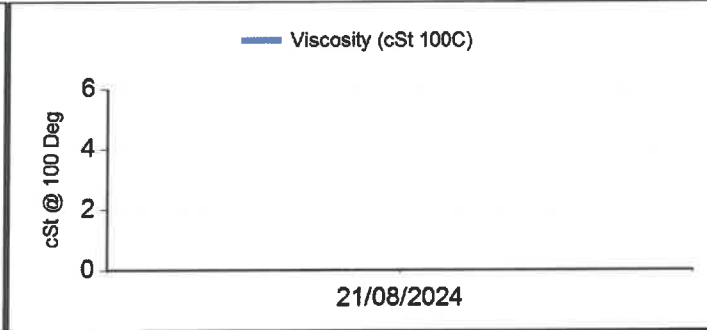
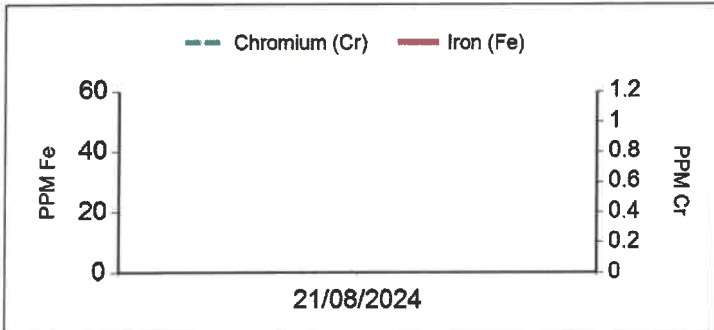
South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand **Southeast Asia** **Europe**
 Wellington Kuala Lumpur, Singapore Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD9A11

Gasoline Engine

Unit No. 2402

Unit: Ford
Make: E-450
Model: 1FDFE4FN5RDD39215
Serial No.

Site

Compartment:

Name: Gasoline Engine
Make
Model
Serial No.
Capacity: qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: DATE SAMPLED, DATE RECEIVED, DATE REPORTED and their corresponding dates.

Table with 2 columns: LAB NO., SIF NO., TIME ON UNIT, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER and their corresponding values.

Table with 2 columns: Metals (ppm) and values for Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V).

Table with 2 columns: Contaminants (ppm) and values for Silicon (Si), Sodium (Na), Potassium (K).

Table with 2 columns: Additives (ppm) and values for Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B).

Table with 2 columns: Contaminants and values for Water (%), Coolant.

Table with 2 columns: Physical Tests and values for Viscosity (cSt 100C), PQ Index.



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal, Severe, Abnormal, Caution, and Normal.

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UIN 0AD9A11

U.S. Laboratories

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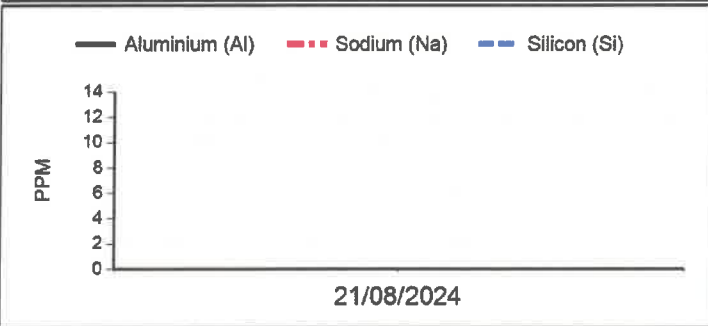
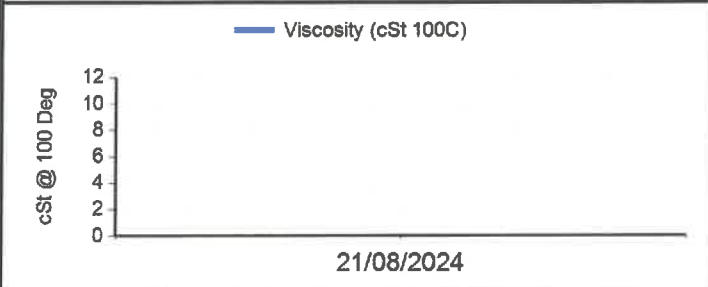
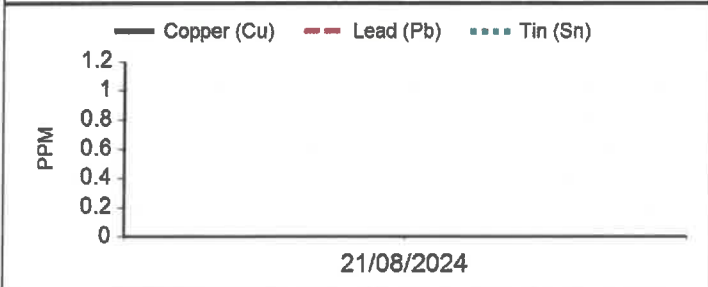
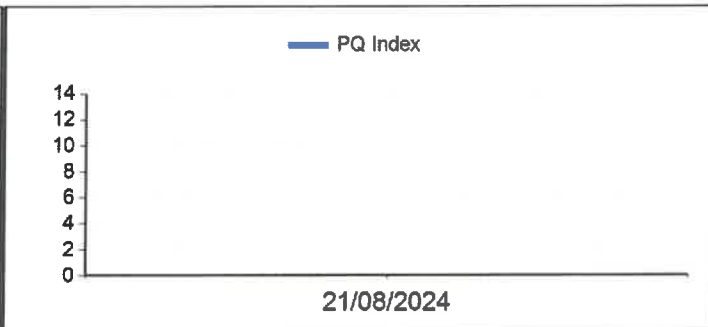
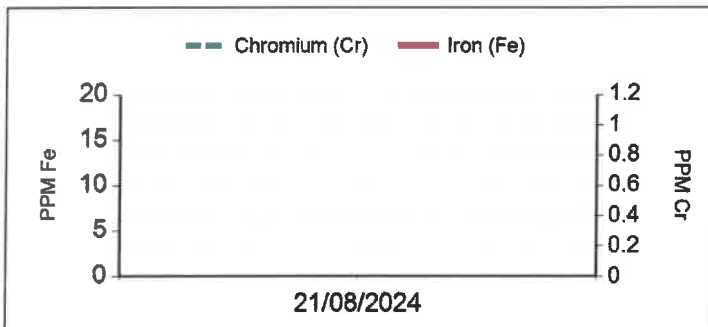
South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand **Southeast Asia** **Europe**
 Wellington Kuala Lumpur, Singapore Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 062683B

Transmission

Unit No. 1708

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4F58HDC36407

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 18.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	21-Aug-24	26-Apr-24	14-Nov-23	19-Jun-23	27-Jan-23	15-Aug-22
DATE RECEIVED	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	14-Feb-23	30-Aug-22
DATE REPORTED	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	16-Feb-23	01-Sep-22
LAB NO.	44023441475	44023335665	44023195913	44023069485	44022938282	44022810869
SIF NO.	704538879	702897563	701689952	701689988	700592838	700592787
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Dexron IV	Dexron IV	Dexron IV	Dexron IV	Dexron IV	Dexron IV
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	21	13	16	16	16	15
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	3
Copper (Cu)	3	2	3	3	3	3
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	7	4	6	6	6	7
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	6	3	5	4	3
Sodium (Na)	<1	<1	<1	<1	<1	<1
Potassium (K)	<1	<1	1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	1	3	3	3	3	4
Calcium (Ca)	126	129	124	143	133	133
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	193	199	193	186	204	189
Zinc (Zn)	5	6	8	10	5	4
Molybdenum (Mo)	<1	1	1	1	<1	<1
Boron (B)	64	71	63	74	77	66
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.7	5.9	5.8	6.0	5.9
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	12	<10	<10	11	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 062683B

U.S. Laboratories

Atlanta, Georgia - 420 5300 OakBrook Parkway Building 200 Suite 245 Norcross, GA 30093 800.394.3669	Valley View, Ohio - 410 6180 Halle Dr. Suite D Valley View, OH 44125 800.726.5400
Kansas City, Kansas - 430 935 Sunshine Road Kansas City, KS 68115 800.332.8055	Phoenix, Arizona - 440 3319 West Earl Drive Phoenix, AZ 85017 800.445.7930
Portland, Oregon - 401 4943 NW Front Avenue Portland, OR 97210 800.770.4128	

Canadian Laboratories

Burlington, Ontario - 450 5036 South Service Rd. Burlington, ON L7L5Y7 905 332 9559	Edmonton, Alberta - 402 9450 17 Ave NW Edmonton, AB T6N 1M9 +1 (780) 483-1036
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877.835.8437

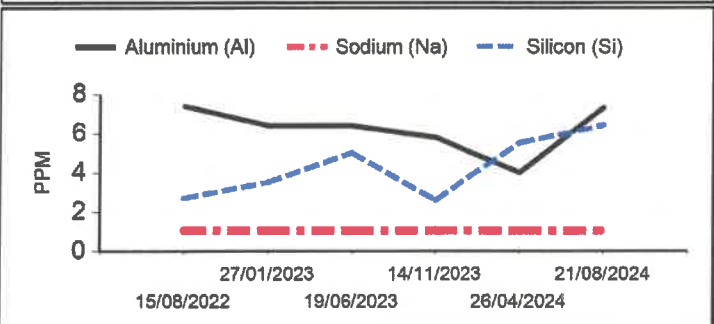
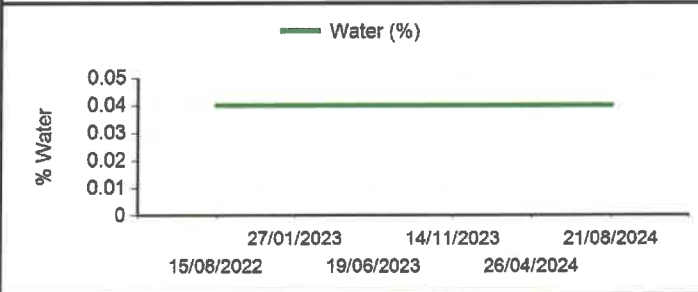
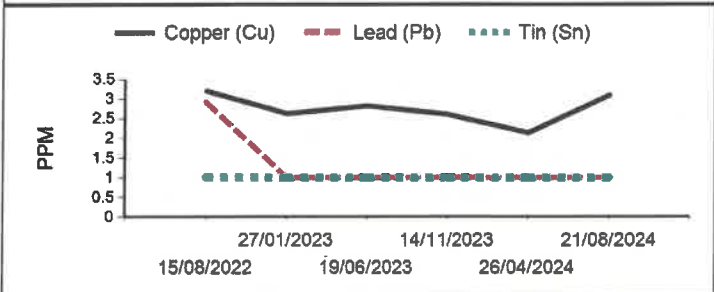
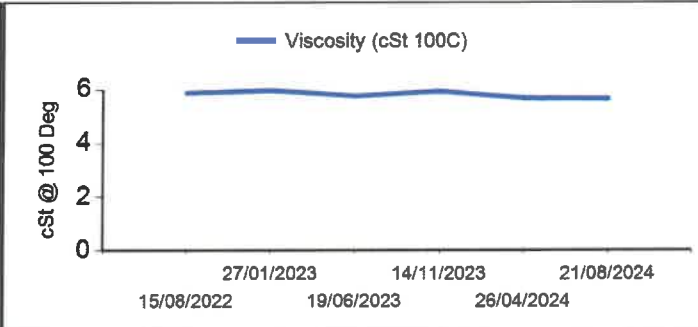
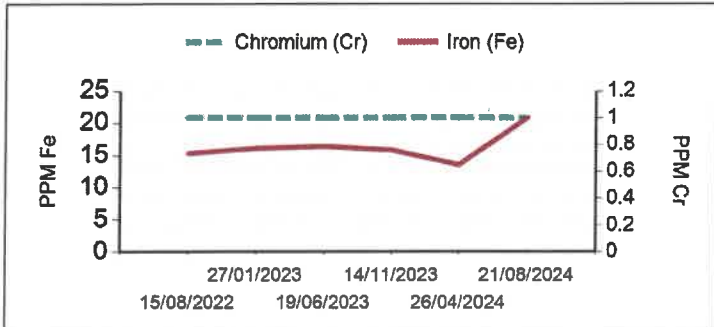
International Locations

Australia Brisbane, Perth, Sydney, Muswellbrook		
South America Santiago de Chile, Belo Horizonte, Brazil		
New Zealand Wellington	Southeast Asia Kuala Lumpur, Singapore	Europe Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05376A9

Diesel Engine

Unit No. 1501

Unit:

Make

Model

Serial No.

Site

Compartment:

Name Diesel Engine

Make

Model

Serial No.

Capacity: qt

Customer:

PARATRANSIT SERVICES

PO Box 698

Lower Lake Ca 95457

USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	07-Oct-24	11-Jun-24	08-Feb-24	12-Oct-23	27-Oct-22	24-May-22
DATE RECEIVED	11-Oct-24	01-Jul-24	05-Mar-24	20-Oct-23	29-Dec-22	15-Jun-22
DATE REPORTED	13-Oct-24	02-Jul-24	06-Mar-24	23-Oct-23	30-Dec-22	17-Jun-22

LAB NO.	44023468888	44023376814	44023270758	44023153286	44022901466	44022754395
SIF NO.	704538875	702897555	702897534	701689932	700592825	39776176
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	13	20	30	24	11	12
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	1
Aluminium (Al)	4	4	10	13	3	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	5	6	7	6	5
Sodium (Na)	2	2	3	1	<1	6
Potassium (K)	2	3	7	8	3	2

Additives (ppm)						
Magnesium (Mg)	252	412	858	855	748	695
Calcium (Ca)	2006	1803	1501	1405	1354	1302
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	883	828	898	814	739	726
Zinc (Zn)	1057	1031	949	927	825	886
Molybdenum (Mo)	4	6	4	4	6	23
Boron (B)	22	24	96	83	81	92

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	13.9	12.8	12.8	13.2	13.1	13.0
Fuel (%)	<1	1.70	1.80	<1	<1	<1
PQ Index	<10	<10	10	<10	10	11
Soot (%) Infrared D7844	0.3	0.4	0.3	0.4	0.3	0.3



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
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 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
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 800.445.7930

Portland, Oregon - 401

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 905 332 9559

Edmonton, Alberta - 402
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 Edmonton, AB T6N 1M9
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Houston, Texas

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 877.835.8437

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

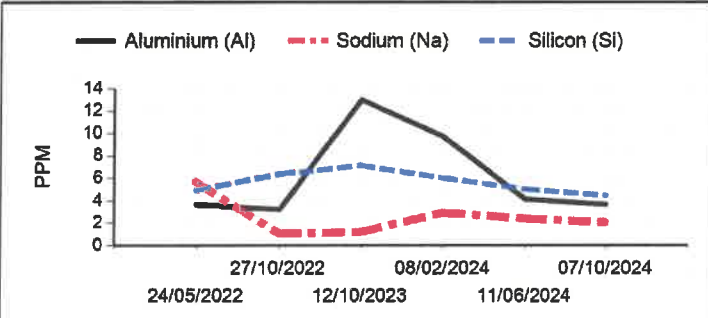
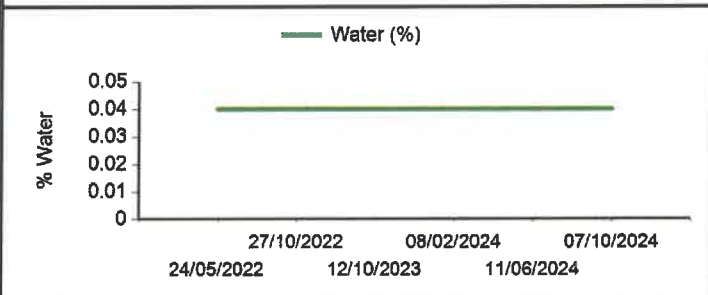
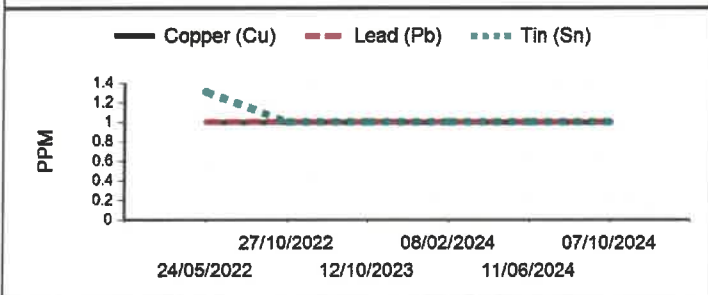
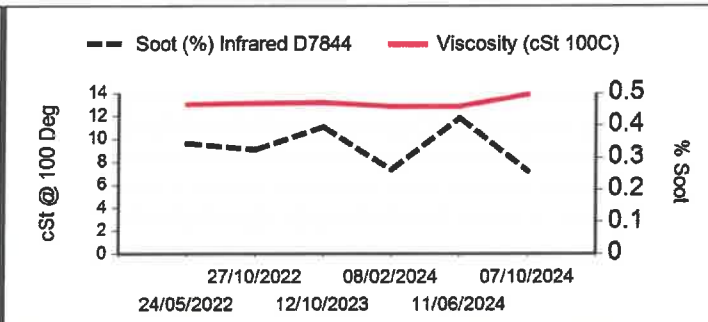
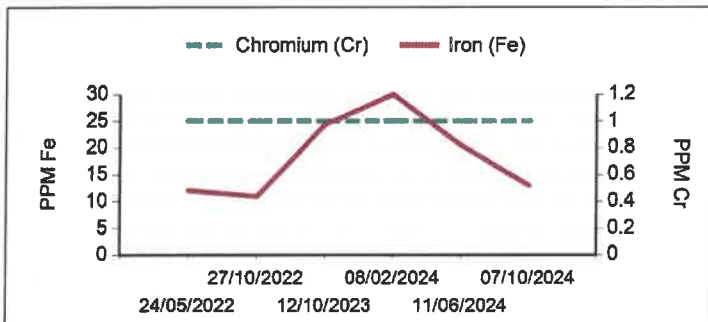
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7847 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter
 Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06266EC

Transmission

Unit No. 1707

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F52HDC36404

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	13-Aug-24	19-Apr-24	04-Nov-23	28-Jun-23	03-Mar-23	02-Nov-22
DATE RECEIVED	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	30-Mar-23	29-Dec-22
DATE REPORTED	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	05-Apr-23	30-Dec-22

LAB NO.	44023441471	44023335663	44023195915	44023069481	44022978403	44022901464
SIF NO.	704538884	702897565	701689950	701689985	701689920	700592823
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	14	17	14	13	15	12
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	3	3	3	3	3	3
Tin (Sn)	<1	<1	1	1	<1	<1
Aluminium (Al)	8	8	9	9	8	8
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	6	4	2	5	5	2
Sodium (Na)	<1	<1	1	<1	<1	<1
Potassium (K)	<1	1	<1	<1	<1	<1

Additives (ppm)						
Magnesium (Mg)	2	5	3	4	6	5
Calcium (Ca)	124	130	121	136	139	132
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	197	205	196	191	212	193
Zinc (Zn)	4	11	6	7	9	6
Molybdenum (Mo)	<1	2	1	1	2	<1
Boron (B)	63	71	61	75	78	69

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.6	6.0	5.6	5.8	5.8	5.8
Solids (%)	<0.1	<0.1	0.1	0.1	<0.1	<0.1

Additional						
PQ Index	12	<10	10	166	<10	12



ANALYST: Sam Smith Phoenix

LEGEND

Normal	Severe	Abnormal	Caution	Normal
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U.S. Laboratories

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Southeast Asia

Kuala Lumpur, Singapore

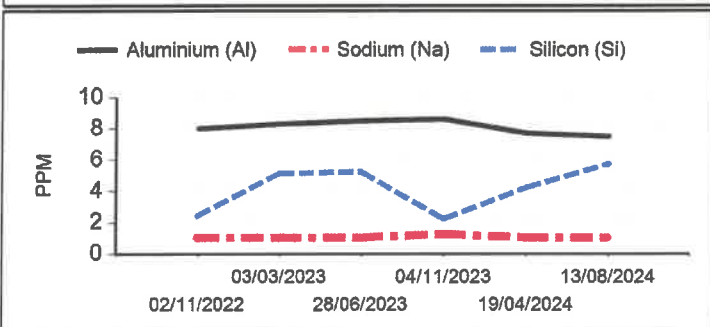
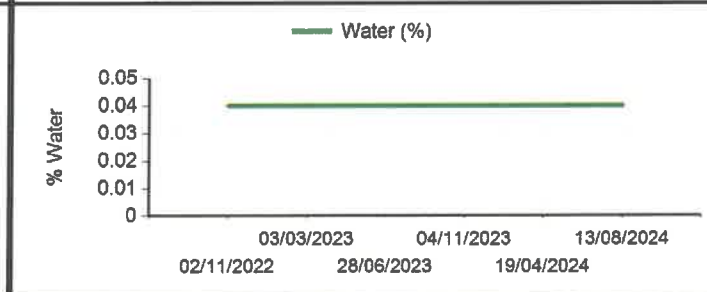
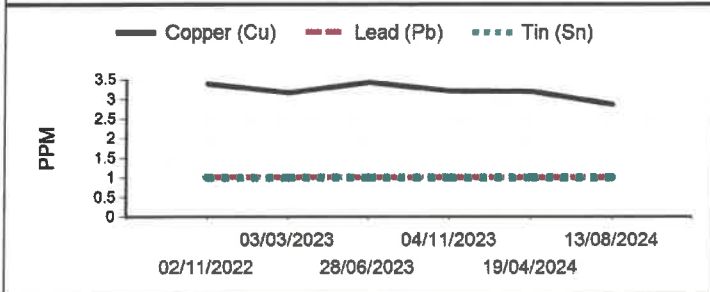
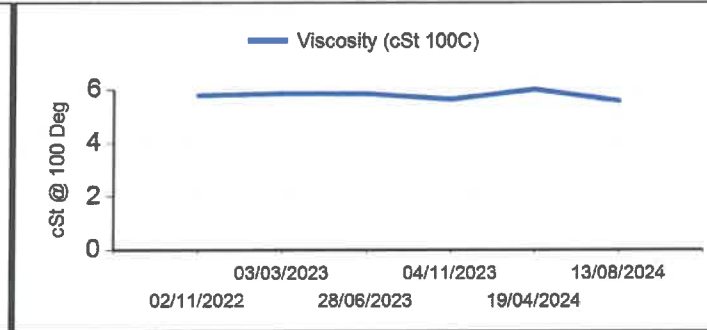
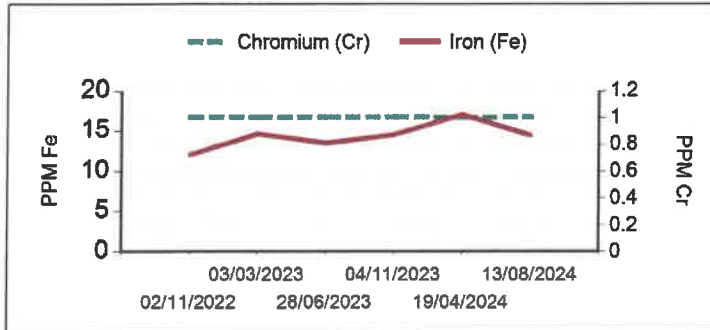
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06266EB

Gasoline Engine

Unit No. 1707

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F52HDC36404

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	13-Aug-24	19-Apr-24	04-Dec-23	28-Jun-23	03-Mar-23	02-Nov-22
DATE RECEIVED	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	30-Mar-23	29-Dec-22
DATE REPORTED	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	05-Apr-23	30-Dec-22
LAB NO.	44023441470	44023335662	44023195914	44023069480	44022978402	44022901463
SIF NO.	704538885	702897566	701689951	701689984	701689921	700592824
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	24	19	17	16	23	10
Chromium (Cr)	<1	<1	<1	<1	1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	4	3	4	3
Nickel (Ni)	2	2	1	2	2	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	12	11	13	13	17	12
Sodium (Na)	37	58	172	29	2	6
Potassium (K)	5	3	14	<1	<1	1
Additives (ppm)						
Magnesium (Mg)	529	490	540	456	545	523
Calcium (Ca)	1418	1335	1375	1333	1473	1477
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	764	708	743	694	760	724
Zinc (Zn)	934	830	887	812	886	857
Molybdenum (Mo)	320	285	299	260	315	304
Boron (B)	11	24	11	16	32	23
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	0.48
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.8	10.5	10.7	10.7	9.9	--
PQ Index	<10	<10	11	<10	55	11



ANALYST: paul.kittrick

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 06266EB

U.S. Laboratories

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 5300 OakBrook Parkway
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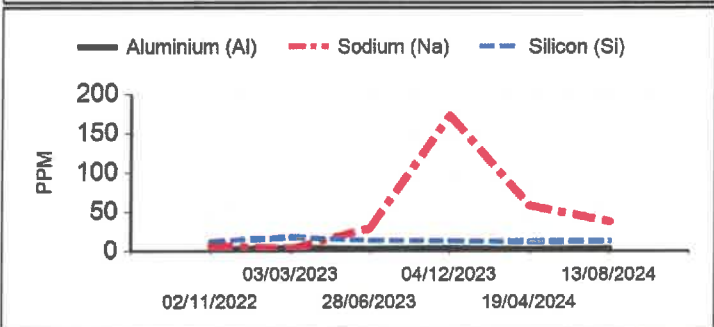
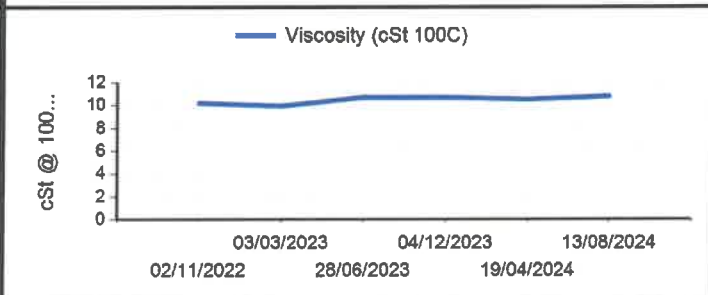
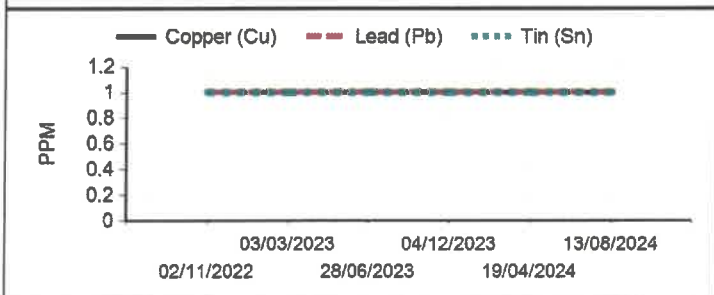
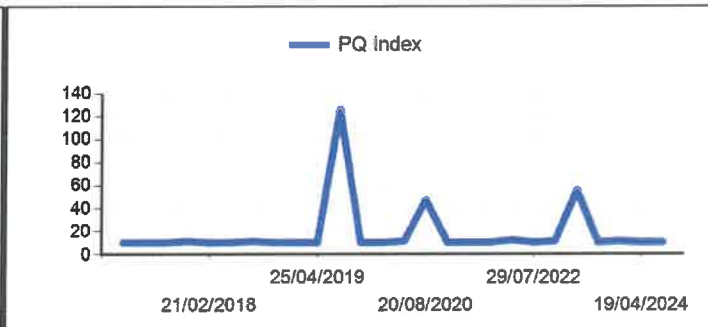
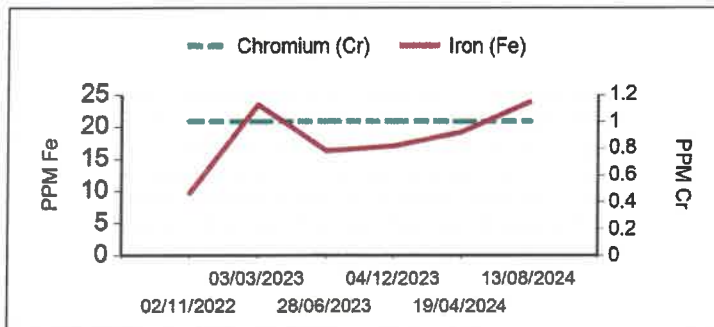
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 062681D

Transmission

Unit No. 1703

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F5HDC33541

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 10.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23	09-Jan-23
DATE RECEIVED	12-Sep-24	15-May-24	17-Jan-24	29-Aug-23	23-May-23	19-Jan-23
DATE REPORTED	13-Sep-24	16-May-24	22-Jan-24	30-Aug-23	26-May-23	20-Jan-23
LAB NO.	44023441473	44023335661	44023229566	44023107502	44023023684	44022918317
SIF NO.	704538877	702897567	702897524	701689902	701689962	700592874
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Motorcraft
OIL TYPE	ATF	ATF	ATF	ATF	ATF	Mercon LV
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	6.0		6.0	8.0		6.0
FILTER						
OIL CHANGED	Changed	Not Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	20	22	20	21	19	19
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	3	4	4	4	4	4
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	8	10	8	11	11	10
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	5	6	4	3	3
Sodium (Na)	<1	<1	<1	<1	<1	4
Potassium (K)	<1	<1	<1	<1	<1	2
Additives (ppm)						
Magnesium (Mg)	2	3	7	4	3	5
Calcium (Ca)	121	123	121	131	130	125
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	194	193	180	197	187	174
Zinc (Zn)	4	5	8	6	3	6
Molybdenum (Mo)	<1	1	<1	1	<1	1
Boron (B)	66	70	73	67	66	65
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.7	6.0	5.8	5.9	5.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	14	<10	10	<10	11	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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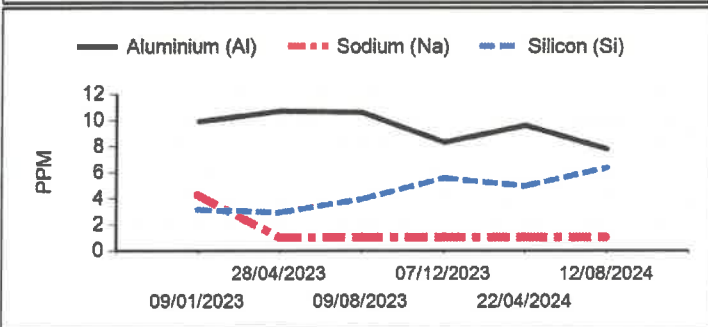
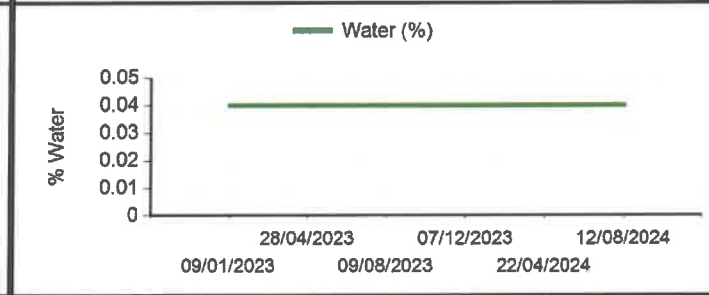
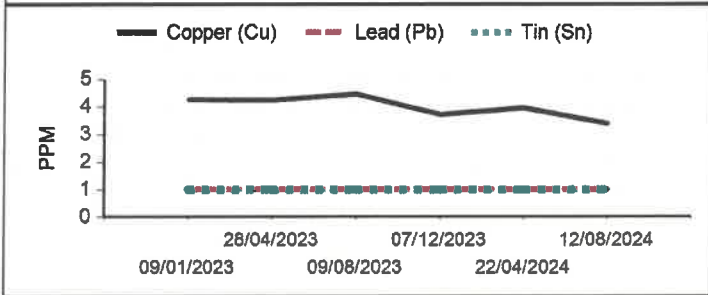
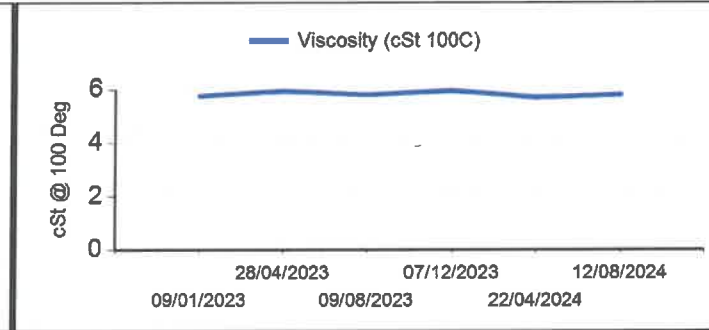
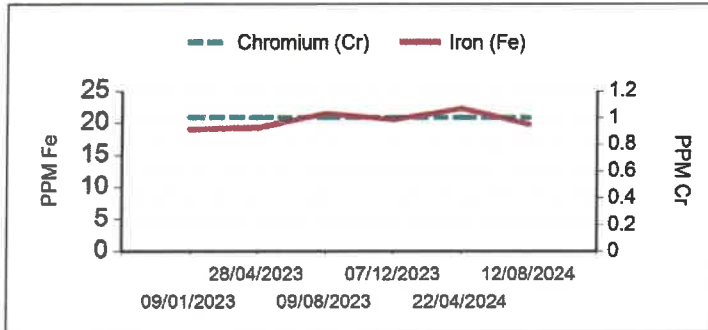
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 062681C

Gasoline Engine

Unit No. 1703

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F5HDC33541

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND				
Normal					Normal
	Severe	Abnormal	Caution		

	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23	09-Jan-23
DATE SAMPLED	12-Aug-24	22-Apr-24	07-Dec-23	09-Aug-23	28-Apr-23	09-Jan-23
DATE RECEIVED	12-Sep-24	15-May-24	17-Jan-24	29-Aug-23	23-May-23	19-Jan-23
DATE REPORTED	13-Sep-24	16-May-24	19-Jan-24	30-Aug-23	26-May-23	24-Jan-23
LAB NO.	44023441472	44023335660	44023229562	44023107501	44023023685	44022918316
SIF NO.	704538876	702897568	702897523	701689903	701689963	700592873
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	28	10	11	20	11	15
Chromium (Cr)	1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	<1	3	9	1	4
Nickel (Ni)	4	2	1	1	1	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	17	11	14	19	10	12
Sodium (Na)	19	8	2	7	<1	7
Potassium (K)	4	<1	1	2	<1	2
Additives (ppm)						
Magnesium (Mg)	573	549	526	620	500	479
Calcium (Ca)	1537	1402	1316	1589	1350	1379
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	811	753	681	784	689	666
Zinc (Zn)	1015	872	816	1018	851	805
Molybdenum (Mo)	348	291	292	339	295	277
Boron (B)	12	23	23	17	32	24
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	0.23
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.2	10.8	10.3	13.1	10.3	-
PQ Index	<10	<10	<10	<10	10	<10

Right Solutions • Right Partner



UIN 062681C

U.S. Laboratories

Atlanta, Georgia - 420
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669

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6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440
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Phoenix, AZ 85017
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International Locations

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Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

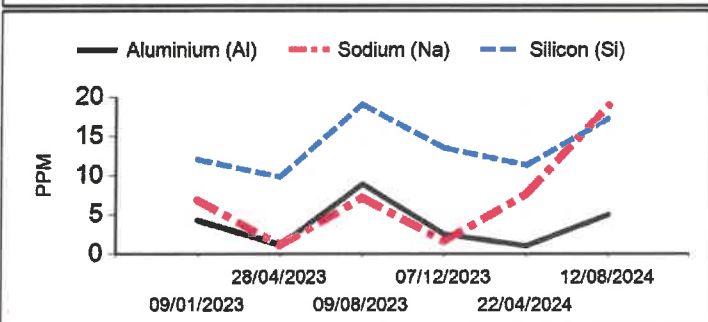
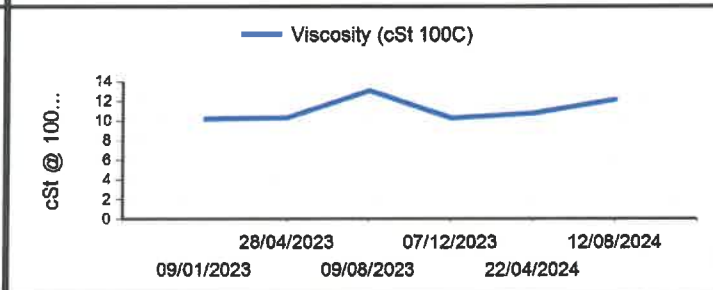
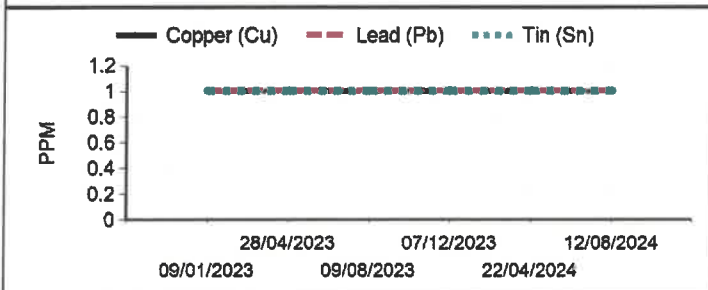
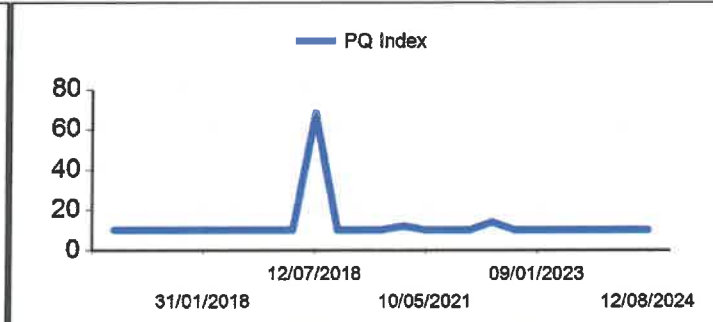
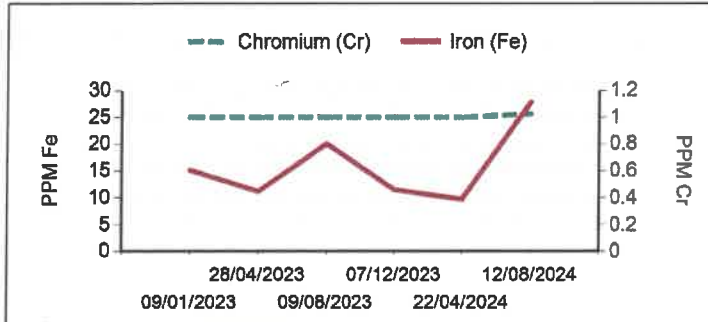
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06267FD

Transmission

Unit No. 1701

Unit:
Make Ford
Model E-450
Serial No. 1FD4E4F50HDC33551

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

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	08-Aug-24	29-Feb-24	19-Oct-23	02-Jun-23	27-Mar-23	18-Nov-22
DATE SAMPLED	08-Aug-24	29-Feb-24	19-Oct-23	02-Jun-23	27-Mar-23	18-Nov-22
DATE RECEIVED	12-Sep-24	25-Mar-24	08-Nov-23	23-Jun-23	30-Mar-23	29-Dec-22
DATE REPORTED	13-Sep-24	26-Mar-24	10-Nov-23	27-Jun-23	05-Apr-23	30-Dec-22
LAB NO.	44023441469	44023289155	44023169866	43021792844	44022978407	44022901462
SIF NO.	704538883	702897586	701689940	701689893	701689928	700592822
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	6.0	6.0	6.0		6.0
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Changed	Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	19	20	16	19	23	27
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	3	4	3	3	4	4
Tin (Sn)	<1	1	<1	<1	<1	1
Aluminium (Al)	13	16	12	12	7	10
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	<1	5	5	8	3
Sodium (Na)	<1	1	1	2	<1	2
Potassium (K)	<1	<1	<1	<1	<1	2
Additives (ppm)						
Magnesium (Mg)	2	3	3	10	5	6
Calcium (Ca)	128	135	120	172	126	138
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	202	210	190	216	212	221
Zinc (Zn)	4	6	6	20	15	16
Molybdenum (Mo)	<1	1	1	5	2	2
Boron (B)	67	67	70	86	76	72
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.9	5.8	5.9	6.7	5.7
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	11	<10	12	<10	<10	13



UIN 06267FD

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Atlanta, Georgia - 420
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669

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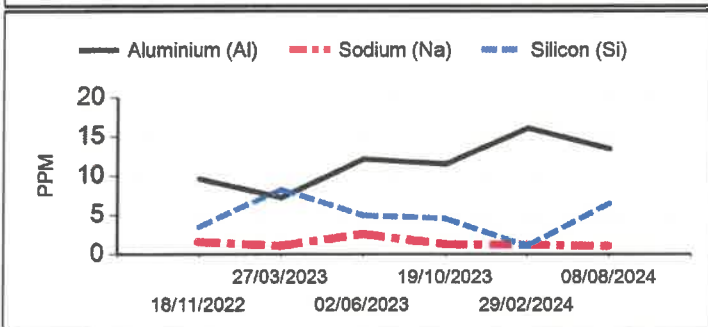
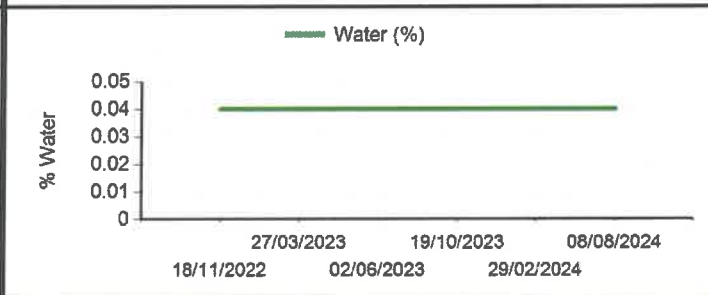
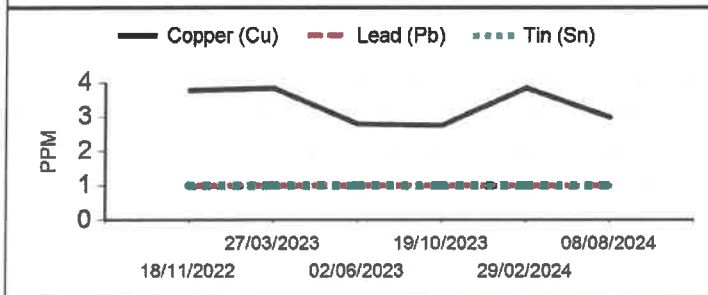
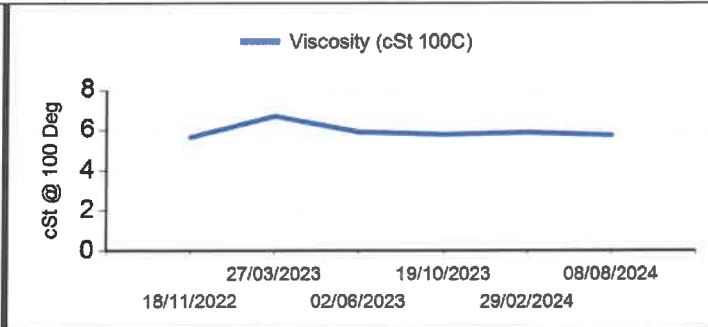
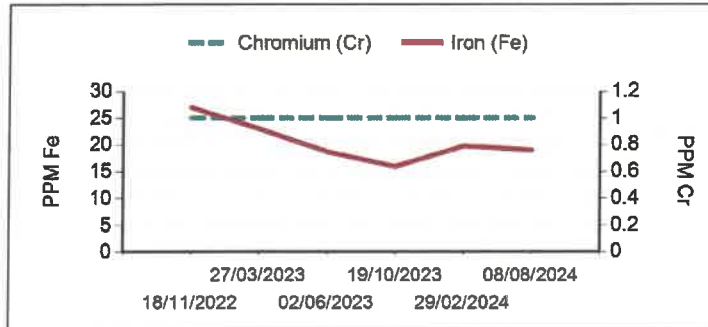
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06267FC

Gasoline Engine

Unit No. 1701

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F50HDC33551

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	08-Aug-24	29-Feb-24	19-Oct-23	02-Jun-23	27-Mar-23	18-Nov-22
DATE RECEIVED	12-Sep-24	25-Mar-24	08-Nov-23	23-Jun-23	30-Mar-23	29-Dec-22
DATE REPORTED	13-Sep-24	26-Mar-24	10-Nov-23	27-Jun-23	04-Apr-23	30-Dec-22

LAB NO.	44023441468	44023289154	44023169865	43021792843	44022978406	44022901461
SIF NO.	704538882	702897585	701689941	701689892	701689929	700592821
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	24	13	16	33	17	48
Chromium (Cr)	1	<1	<1	1	<1	3
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	4	4	6	3	11
Nickel (Ni)	2	2	1	2	<1	3
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	15	7	13	12	13	22
Sodium (Na)	23	12	7	19	10	35
Potassium (K)	4	1	1	<1	<1	5

Additives (ppm)						
Magnesium (Mg)	603	617	551	598	533	595
Calcium (Ca)	1553	1523	1412	1741	1438	1713
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	784	775	726	804	732	803
Zinc (Zn)	999	970	900	1035	857	987
Molybdenum (Mo)	346	327	289	336	302	344
Boron (B)	11	34	25	33	31	16

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	0.23	0.45
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	11.5	10.3	12.1	12.3	--	--
PQ Index	14	22	10	<10	43	10



ANALYST: paul.kittrick

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 06267FC

U.S. Laboratories

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 5300 Oakbrook Parkway
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 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
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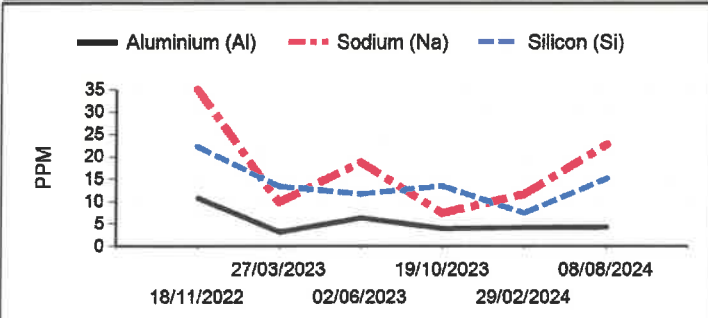
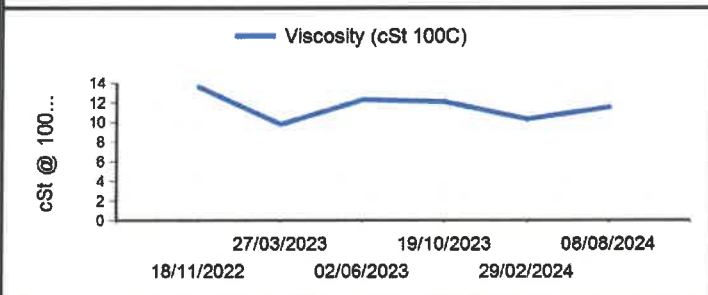
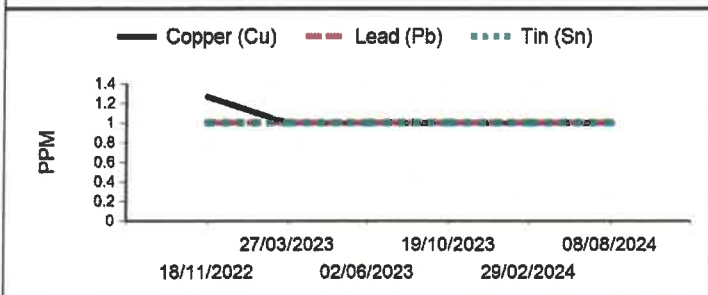
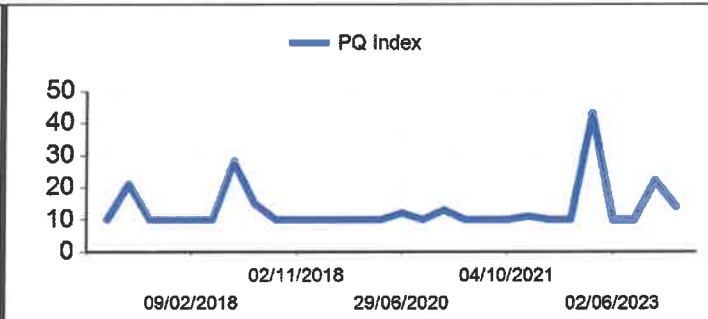
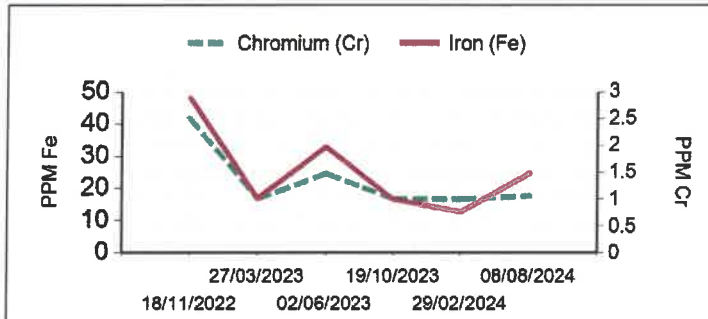
Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.



0002 v1.9



UIN 05CEDA4

Diesel Engine

Unit No. 1602

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU0HCJC8217

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 17.5 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	07-Aug-24	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23	22-Sep-22
DATE RECEIVED	14-Aug-24	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23	14-Oct-22
DATE REPORTED	15-Aug-24	26-Apr-24	11-Dec-23	19-Jul-23	13-Mar-23	17-Oct-22
LAB NO.	44023415903	44023318108	44023195906	44023069478	44022956868	44022843564
SIF NO.	702897539	702897574	701689956	701689987	700592797	700592884
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	16.0	16.0	16.0	16.0	16.0	16.0
FILTER						
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	17	22	26	12	13	16
Chromium (Cr)	<1	<1	1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	5	6	3	4	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	6	5	5	8	8
Sodium (Na)	<1	2	3	<1	<1	2
Potassium (K)	2	4	5	3	2	3
Additives (ppm)						
Magnesium (Mg)	346	704	759	666	669	700
Calcium (Ca)	1779	1239	1247	1149	1198	1268
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	836	670	729	677	654	658
Zinc (Zn)	987	788	817	719	741	746
Molybdenum (Mo)	6	9	4	3	3	7
Boron (B)	15	39	29	58	60	57
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.7	11.5	12.6	12.1	10.9	12.4
Fuel (%)	2.20	1.6	2.40	4.3	5.6	2.50
PQ Index	<10	<10	12	<10	<10	<10
Soot (%) Infrared D7844	0.5	0.4	0.6	0.2	0.3	0.5





UIN 05CEDA4

U.S. Laboratories

- Atlanta, Georgia - 420**
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669
- Valley View, Ohio - 410**
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400
- Kansas City, Kansas - 430**
935 Sunshine Road
Kansas City, KS 66115
800.332.8055
- Phoenix, Arizona - 440**
3319 West Earle Drive
Phoenix, AZ 85017
800.445.7930
- Portland, Oregon - 401**
4943 NW Front Avenue
Portland, OR 97210
800.770.4128

Canadian Laboratories

- Burlington, Ontario - 450**
5036 South Service Rd.
Burlington, ON L7L5Y7
905.332.9559
- Edmonton, Alberta - 402**
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing

- Houston, Texas**
10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

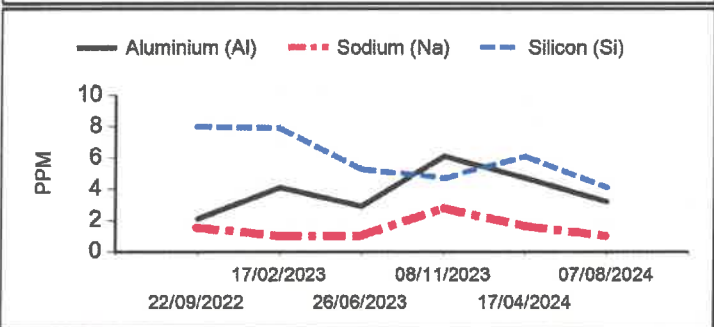
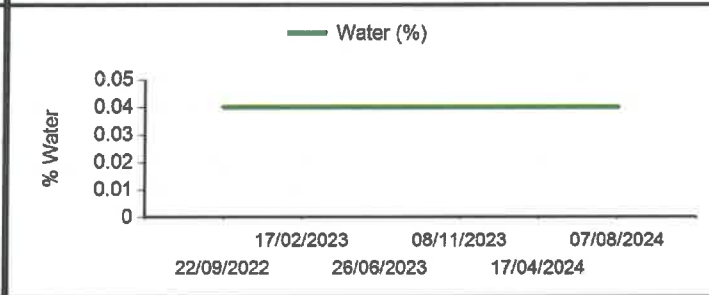
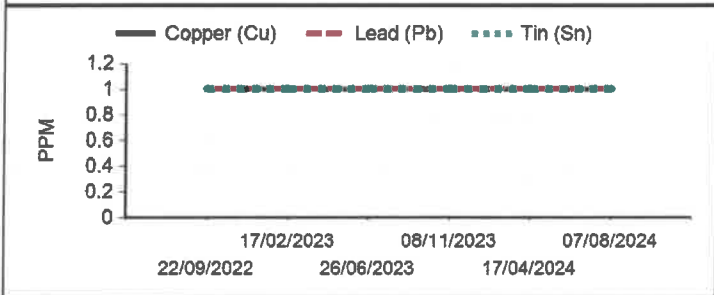
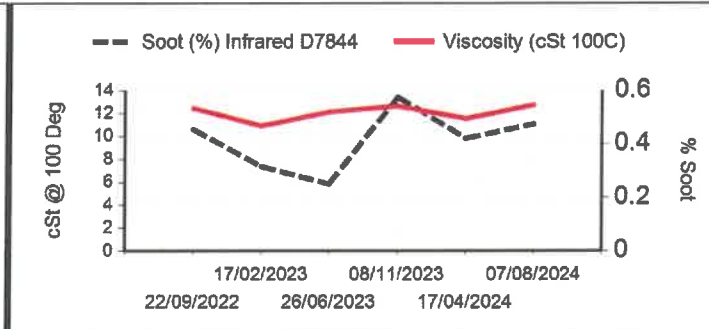
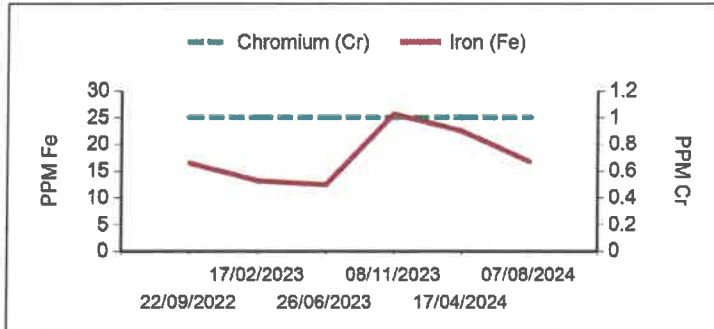
International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 08046CE

Gasoline Engine

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

Right Solutions • Right Partner

DATE SAMPLED	29-Aug-24	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23	13-Oct-22
DATE RECEIVED	12-Sep-24	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23	31-Oct-22
DATE REPORTED	13-Sep-24	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23	02-Nov-22
LAB NO.	44023441478	44023318106	44023253080	44023069486	44022956866	44022856762
SIF NO.	702897490	702897576	702897511	701689981	700592805	700592853
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	10	18	12	19	8
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	1	4	2	4	2
Tin (Sn)	<1	1	<1	<1	1	2
Aluminium (Al)	2	3	6	4	5	<1
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	13	28	20	30	18
Sodium (Na)	6	2	8	<1	4	8
Potassium (K)	2	2	<1	<1	<1	1
Additives (ppm)						
Magnesium (Mg)	498	507	578	519	528	536
Calcium (Ca)	1342	1413	1611	1423	1443	1431
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	728	691	815	712	726	729
Zinc (Zn)	887	860	1038	830	867	882
Molybdenum (Mo)	309	298	329	305	306	295
Boron (B)	39	22	18	28	21	41
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.0	8.4	10.2	8.7	9.5	8.1
PQ Index	<10	11	<10	<10	<10	<10



UIN 08046CE

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
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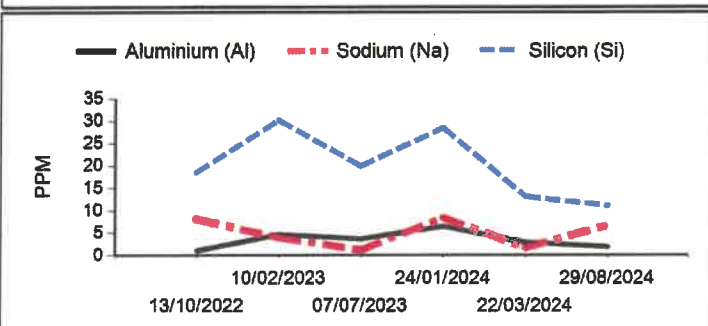
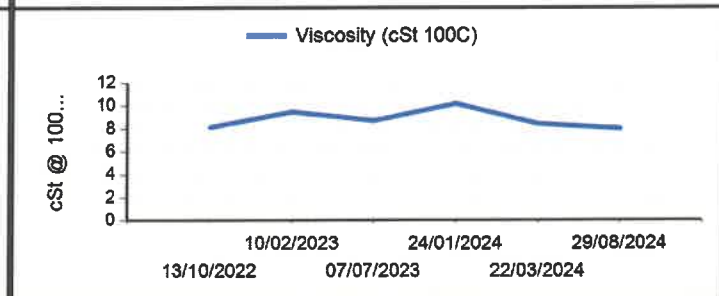
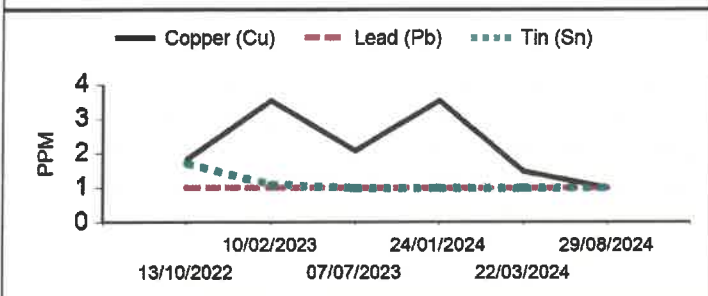
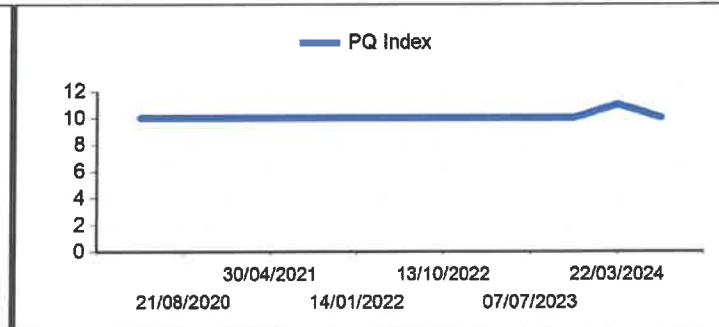
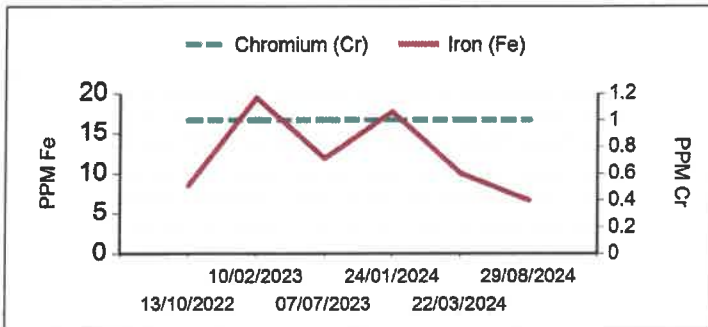
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

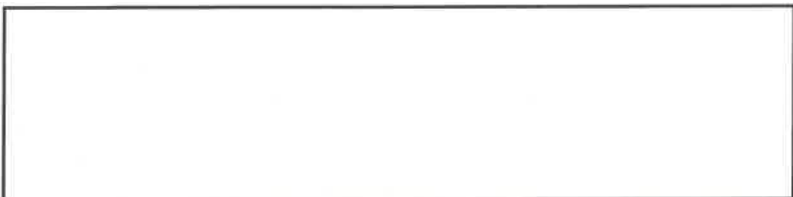
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E9277

Transmission

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	25-Jul-24	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22	01-Sep-22
DATE RECEIVED	14-Aug-24	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23	15-Sep-22
DATE REPORTED	15-Aug-24	26-Mar-24	25-Sep-23	26-May-23	20-Jan-23	16-Sep-22

LAB NO.	44023415906	44023289159	44023128375	44023023691	44022918311	44022821204
SIF NO.	702897545	702897581	701689915	701689968	700592867	700592863
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Chevron	Chevron
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED qt	3.0	3.0	3.0	3.0	3.0	3.0
FILTER	Not Applicable					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	52	49	60	53	57	51
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	7	8	10	9	10	11
Tin (Sn)	<1	<1	<1	<1	<1	2
Aluminium (Al)	18	19	21	17	16	16
Nickel (Ni)	2	2	2	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	6	<1	7	5	6	5
Sodium (Na)	<1	2	2	2	5	3
Potassium (K)	<1	<1	<1	<1	2	2

Additives (ppm)						
Magnesium (Mg)	2	2	2	2	2	4
Calcium (Ca)	125	130	139	121	118	102
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	180	191	189	171	166	159
Zinc (Zn)	3	4	4	4	5	6
Molybdenum (Mo)	1	2	2	2	3	4
Boron (B)	64	61	72	64	62	60

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	6.0	5.9	5.6	5.8
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	16	14	14	15	11	13



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 07E9277

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
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 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

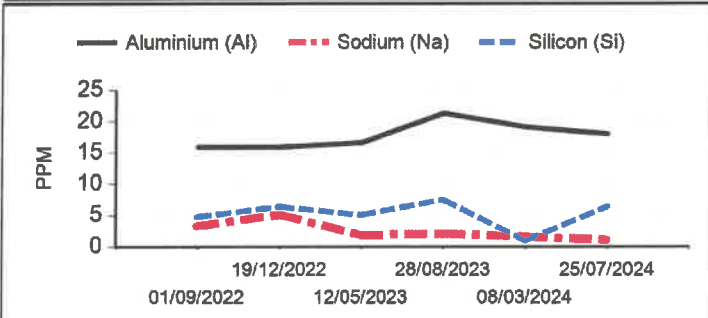
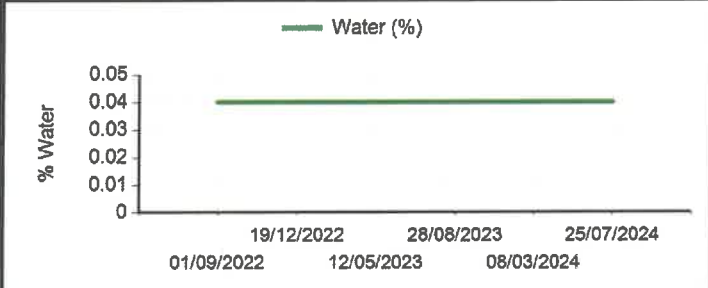
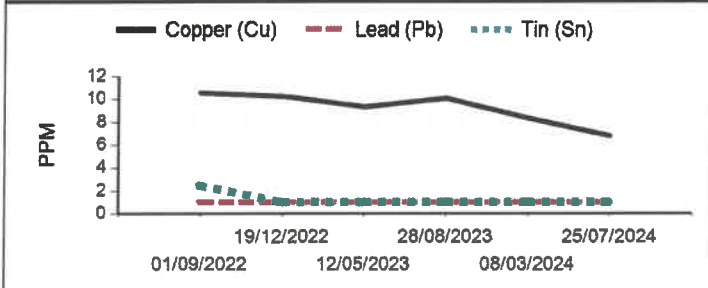
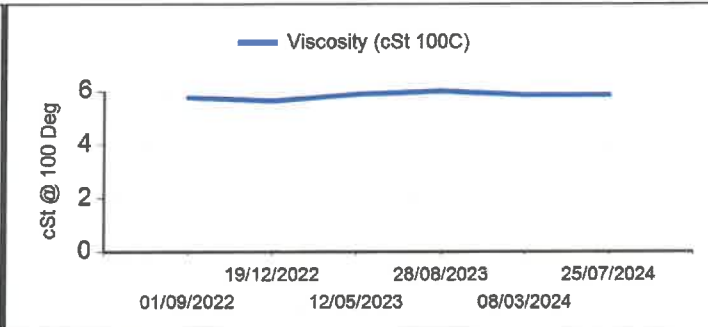
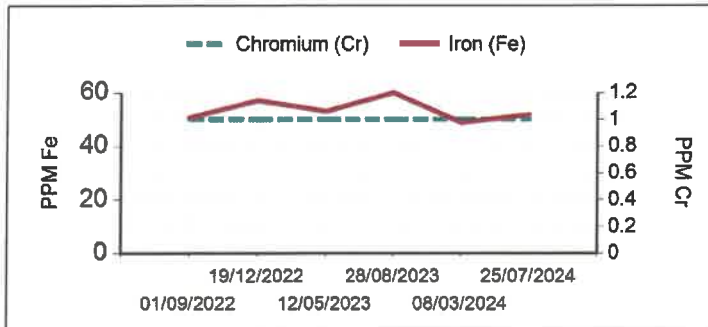
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

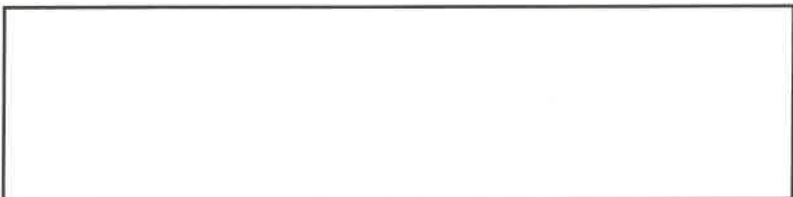
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046EA

Transmission

Unit No. 1904

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM6KKB48491

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, Advise carry out transmission performance pressure checks. Resample after corrective action to further monitor.

ANALYST: aaron.cotton

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	16-Jul-24	19-Jan-24	07-Sep-23	26-May-23	07-Feb-23	07-Oct-22
DATE RECEIVED	31-Jul-24	13-Feb-24	20-Sep-23	23-Jun-23	14-Feb-23	14-Oct-22
DATE REPORTED	02-Aug-24	14-Feb-24	25-Sep-23	27-Jun-23	16-Feb-23	17-Oct-22

LAB NO.	44023403752	44023253079	44023128162	43021792846	44022938288	44022843556
SIF NO.	702897502	702897513	701689912	701689898	700592844	700592885
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	ATF	ATF	ATF
OIL GRADE	Unknown	Unknown	Unknown	ATF	ATF	ATF
OIL ADDED	qt	3.0	3.0		3.0	
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Not Changed	Changed	Not Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	79	90	70	75	51	79
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	10	11	10	12	9	12
Tin (Sn)	2	2	2	2	1	<1
Aluminium (Al)	56	57	45	41	25	26
Nickel (Ni)	3	3	3	3	2	3
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	10	11	10	8	5	8
Sodium (Na)	2	3	2	4	1	<1
Potassium (K)	<1	<1	<1	<1	<1	1

Additives (ppm)						
Magnesium (Mg)	2	6	3	9	2	6
Calcium (Ca)	133	137	133	157	134	122
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	182	198	196	183	190	163
Zinc (Zn)	9	13	6	20	5	11
Molybdenum (Mo)	2	5	2	7	3	4
Boron (B)	59	61	62	64	66	60

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.9	5.8	5.8	5.9	5.7
Solids (%)	<0.1	<0.1	0.1	<0.1	0.1	<0.1

Additional						
PQ Index	16	17	13	12	<10	13





UIN 08046EA

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
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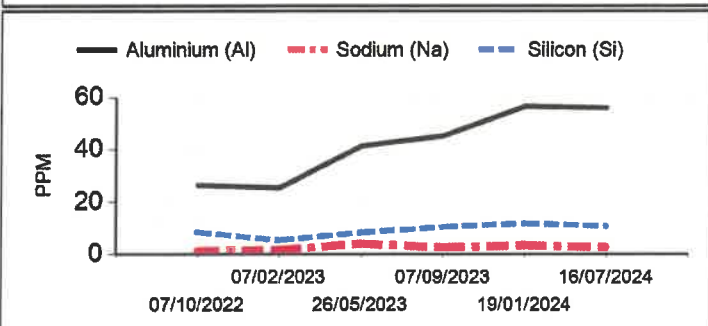
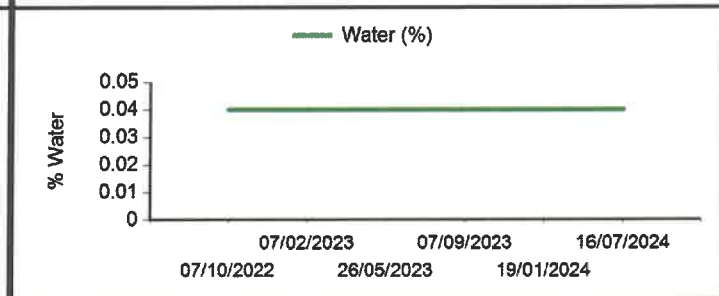
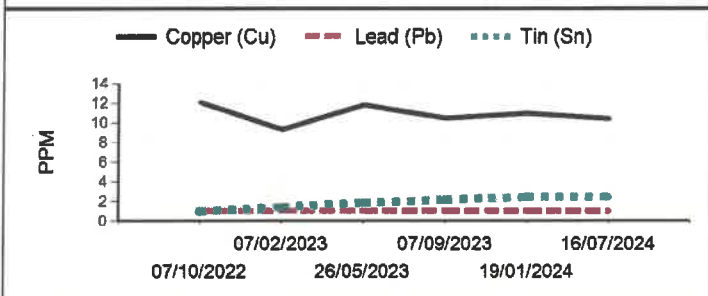
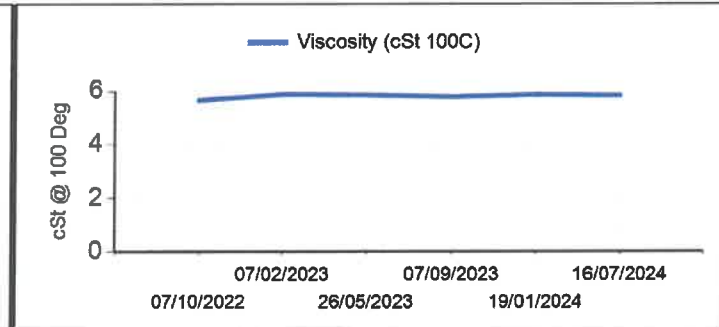
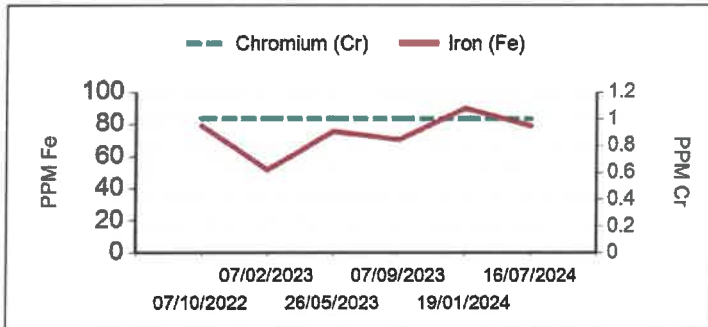
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 062683A

Gasoline Engine

Unit No. 1708

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F58HDC36407

Site

Compartment:

Name Gasoline Engine

Model

Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: paul.kittrick

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	21-Aug-24	26-Apr-24	14-Nov-23	19-Jun-23	27-Jan-23	15-Aug-22
DATE RECEIVED	12-Sep-24	15-May-24	08-Dec-23	14-Jul-23	14-Feb-23	30-Aug-22
DATE REPORTED	13-Sep-24	16-May-24	11-Dec-23	18-Jul-23	16-Feb-23	01-Sep-22
LAB NO.	44023441474	44023335664	44023195912	44023069484	44022938281	44022810870
SIF NO.	704538878	702897564	701689953	701689989	700592837	700592788
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed		Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	20	15	13	24	23	21
Chromium (Cr)	<1	<1	<1	1	1	1
Lead (Pb)	<1	<1	<1	<1	<1	3
Copper (Cu)	9	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	2
Aluminium (Al)	4	2	3	4	3	5
Nickel (Ni)	2	1	<1	2	4	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	36	11	10	14	15	15
Sodium (Na)	13	4	5	2	4	8
Potassium (K)	5	2	3	1	<1	2
Additives (ppm)						
Magnesium (Mg)	503	530	543	508	543	509
Calcium (Ca)	1424	1373	1311	1366	1486	1473
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	749	741	737	719	780	667
Zinc (Zn)	925	849	871	852	950	825
Molybdenum (Mo)	297	288	273	289	327	289
Boron (B)	20	17	21	17	20	20
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	11.0	10.8	10.9	11.1	10.2	11.5
PQ Index	<10	<10	<10	<10	<10	23

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UIN 062683A

U.S. Laboratories

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 5300 OakBrook Parkway
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 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
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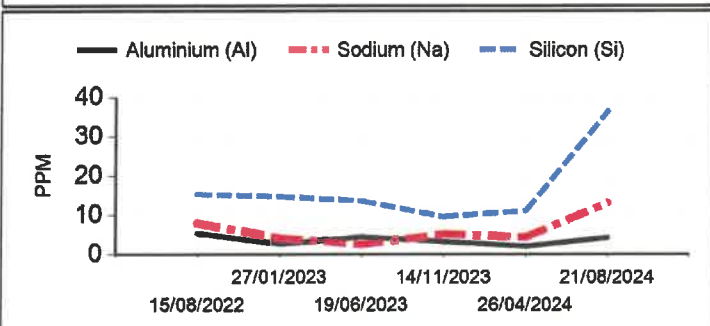
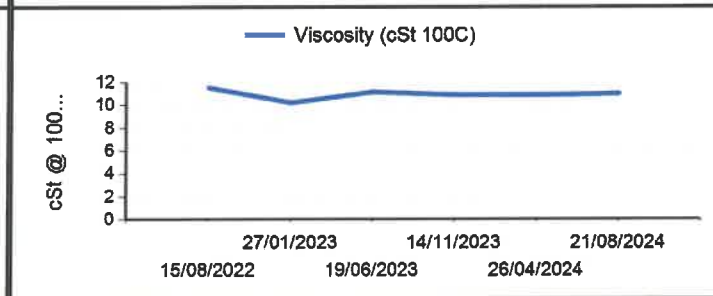
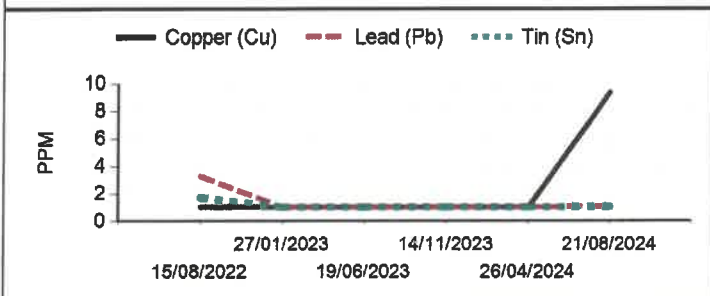
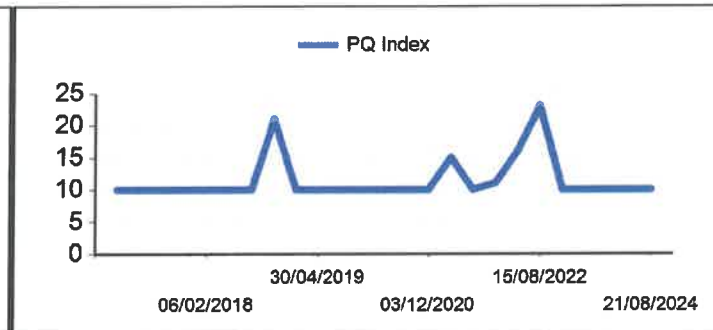
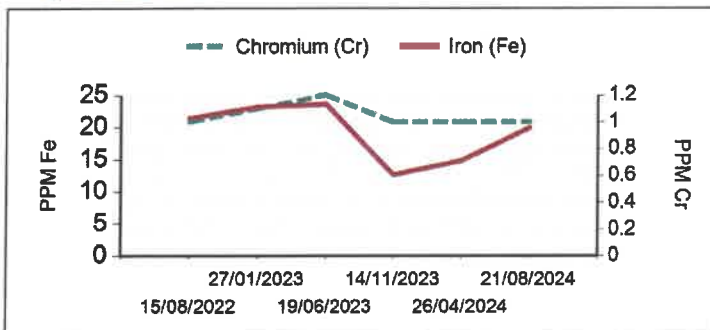
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0AD99EA

Transmission

Unit No. 2405

Unit: Ford
Make: E-450
Model: 1FD FE4 FN4 RDD38864
Serial No.

Site

Compartment:

Name: Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

Unit/oil times unknown. The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Oil type and/or fluid grade not given. Please provide missing oil information at next sample submission. Action: As oil already changed, Resample at a reduced service interval to monitor and establish wear trend.

ANALYST: paul.kittrick

LEGEND
Severe (STOP sign)
Severe (STOP sign)
Abnormal (Wrench and screwdriver)
Caution (Warning sign)
Normal (Checkmark)

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Table with 2 columns: DATE SAMPLED (15-Aug-24), DATE RECEIVED (12-Sep-24), DATE REPORTED (13-Sep-24)

Table with 3 columns: LAB NO. (44023441467), SIF NO. (704538881), TIME ON UNIT (mi), TIME ON OIL (mi), OIL BRAND (Unidentified), OIL TYPE (Unidentified), OIL GRADE (Unknown), OIL ADDED (qt, 6.0), FILTER (mi), OIL CHANGED (Changed), WO NUMBER

Metals (ppm) table: Iron (Fe) 60, Chromium (Cr) <1, Lead (Pb) 2, Copper (Cu) 42, Tin (Sn) 2, Aluminium (Al) 62, Nickel (Ni) 4, Silver (Ag) <1, Titanium (Ti) <1, Vanadium (V) <1

Contaminants (ppm) table: Silicon (Si) 8, Sodium (Na) 5, Potassium (K) 2

Additives (ppm) table: Magnesium (Mg) 7, Calcium (Ca) 128, Barium (Ba) 2, Phosphorus (P) 194, Zinc (Zn) 19, Molybdenum (Mo) 14, Boron (B) 64

Contaminants table: Water (%) <0.05

Physical Tests table: Viscosity (cSt 100C) 5.6, Solids (%) <0.1

Additional table: PQ Index 20





UIN 0AD99EA

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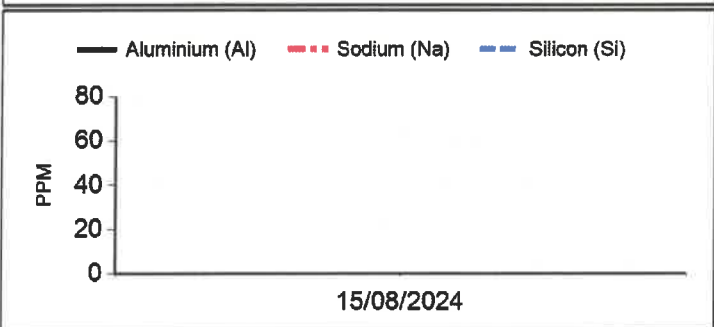
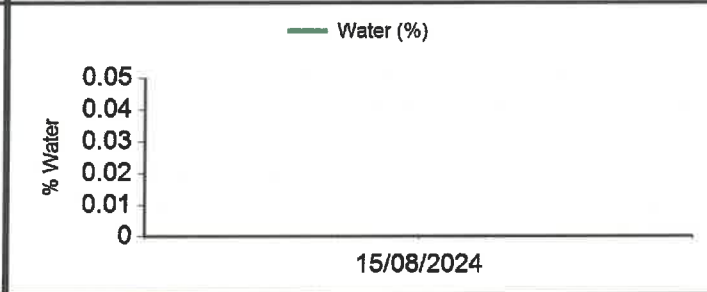
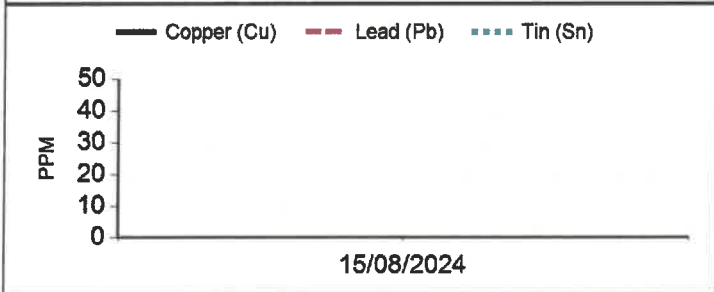
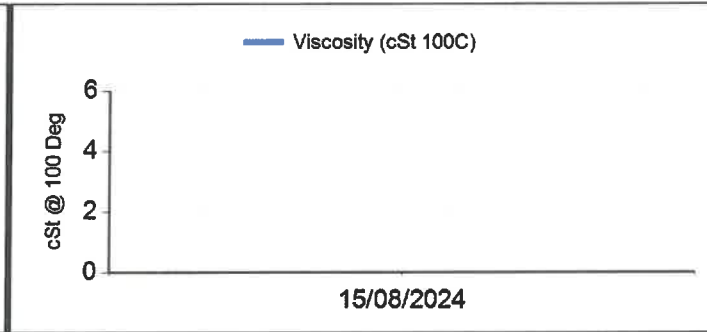
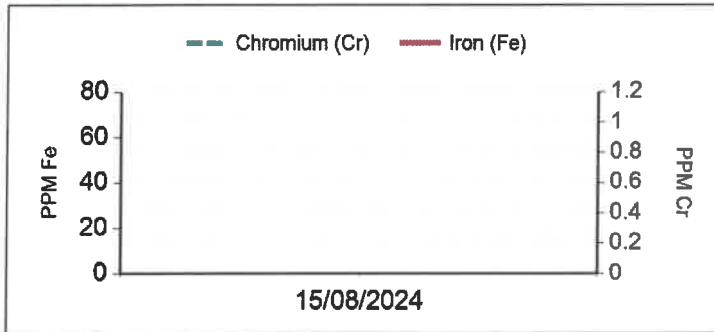
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AD99E9

Gasoline Engine

Unit No. 2405

Unit:
Make Ford
Model E-450
Serial No. 1DFE4FN4RDD38864

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	15-Aug-24
DATE RECEIVED	12-Sep-24
DATE REPORTED	13-Sep-24

LAB NO.		44023441466
SIF NO.		704538880
TIME ON UNIT	mi	
TIME ON OIL	mi	
OIL BRAND		Unidentified
OIL TYPE		Unidentified
OIL GRADE		SAE 5W30
OIL ADDED	qt	8.0
FILTER	mi	
OIL CHANGED		Changed
WO NUMBER		

Metals (ppm)		
Iron (Fe)		13
Chromium (Cr)		<1
Lead (Pb)		<1
Copper (Cu)		4
Tin (Sn)		<1
Aluminium (Al)		3
Nickel (Ni)		1
Silver (Ag)		<1
Titanium (Ti)		<1
Vanadium (V)		<1

Contaminants (ppm)		
Silicon (Si)		24
Sodium (Na)		13
Potassium (K)		3

Additives (ppm)		
Magnesium (Mg)		554
Calcium (Ca)		1410
Barium (Ba)		<1
Phosphorus (P)		762
Zinc (Zn)		951
Molybdenum (Mo)		311
Boron (B)		20

Contaminants		
Water (%)		<0.05
Coolant		No

Physical Tests		
Viscosity (cSt 100C)		11.2
PQ Index		<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AD99E9

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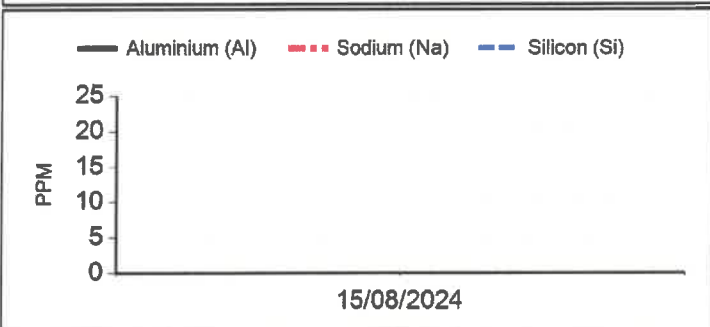
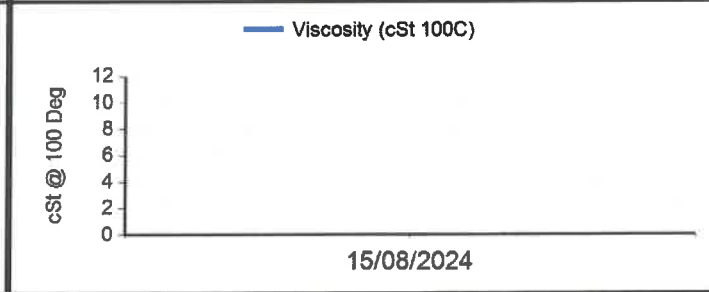
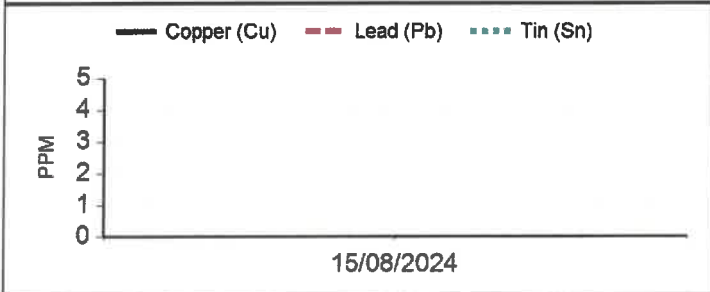
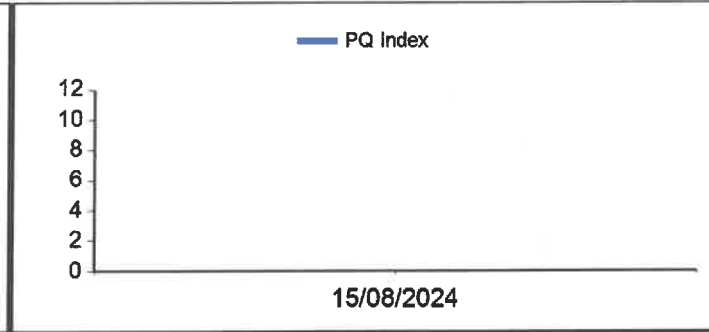
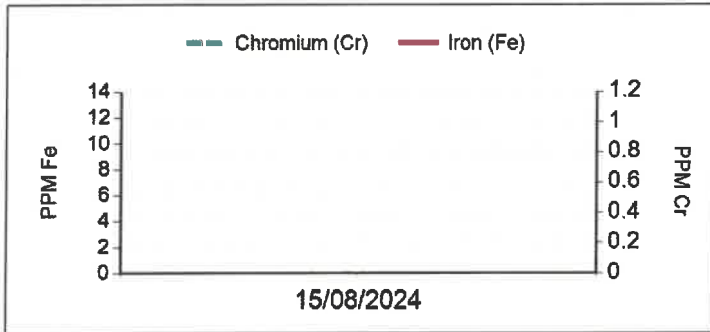
South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand **Southeast Asia** **Europe**
 Wellington Kuala Lumpur, Singapore Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414
 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 092B870

Transmission

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD0NCNE1312

Site

Compartment:
Name Transmission
Make
Model
Serial No. 4UZADRFD0NCNE1312
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	31-Jul-24	11-Mar-24	30-Oct-23	11-Jul-23	12-Oct-22	11-Jul-22
DATE RECEIVED	14-Aug-24	25-Mar-24	08-Nov-23	29-Aug-23	31-Oct-22	19-Jul-22
DATE REPORTED	15-Aug-24	26-Mar-24	10-Nov-23	30-Aug-23	02-Nov-22	21-Jul-22

LAB NO.	44023415908	44023289190	44023169870	44023107500	44022856769	44022779396
SIF NO.	702897541	702897579	701689947	701689901	700592856	39776249
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt	8.0	8.0	8.0		
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Changed	Not Changed	Not Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	29	30	36	39	38	40
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	3	3	6	10	13
Copper (Cu)	6	8	8	11	19	23
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	4	4	4	4	5
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	3	<1	3	4	4	4
Sodium (Na)	<1	2	2	2	6	6
Potassium (K)	<1	<1	<1	2	3	3

Additives (ppm)						
Magnesium (Mg)	22	26	31	33	20	1
Calcium (Ca)	90	110	123	124	78	60
Barium (Ba)	<1	<1	<1	<1	<1	1
Phosphorus (P)	222	236	214	242	258	223
Zinc (Zn)	29	36	39	42	32	7
Molybdenum (Mo)	<1	<1	<1	<1	1	<1
Boron (B)	77	74	75	80	89	86

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.6	6.7	6.7	6.7	6.8	6.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	37	14	14	14	12	16

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

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UIN 092B870

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Southeast Asia

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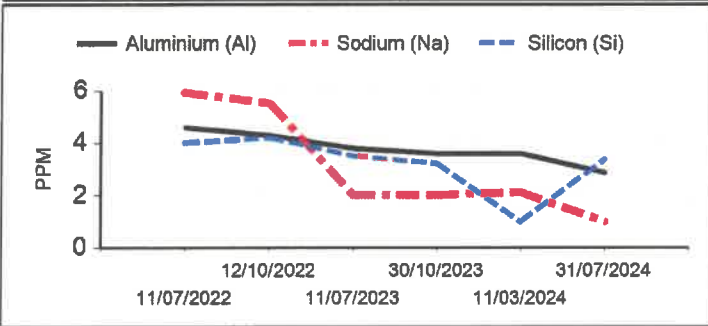
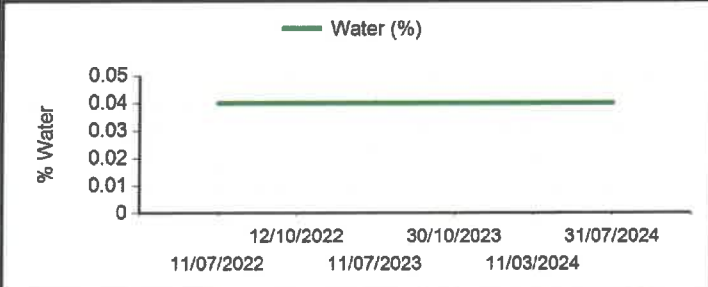
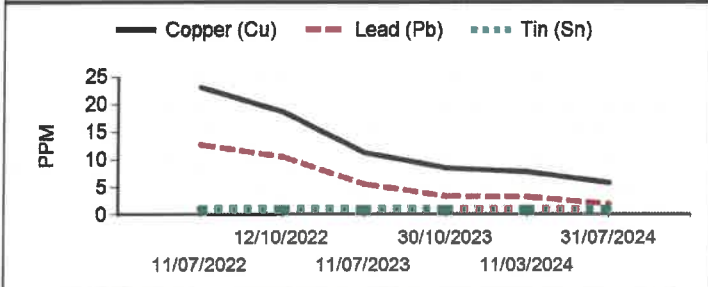
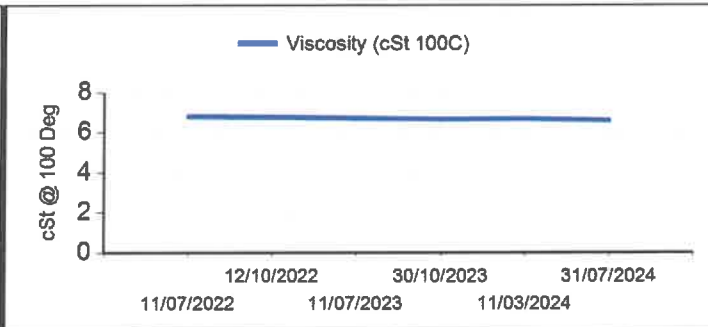
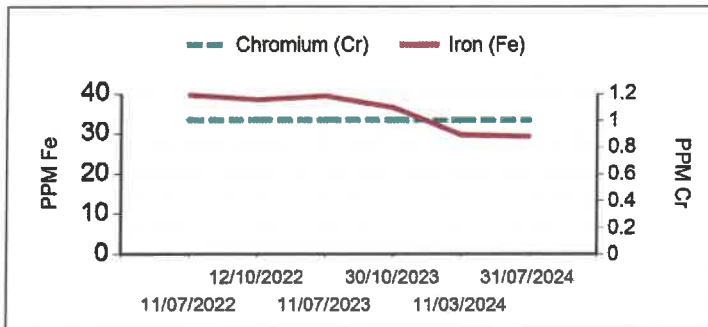
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0916D7B

Transmission

Unit No. 2101

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	26-Jul-24	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23	04-Nov-22
DATE RECEIVED	14-Aug-24	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23	29-Dec-22
DATE REPORTED	15-Aug-24	25-Apr-24	11-Dec-23	27-Jun-23	13-Mar-23	03-Jan-23

LAB NO.	44023415910	44023318105	44023195911	43021792842	44022956865	44022901829
SIF NO.	702897547	702897577	701689958	701689895	700592803	700592820
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED qt	8.0	8.0			8.0	8.0
FILTER						
OIL CHANGED	Changed	Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	31	31	34	38	42	30
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	2	3	4	3	5
Copper (Cu)	6	6	8	9	13	11
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	5	6	6	7	5
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	4	2	5	8	4
Sodium (Na)	<1	3	2	3	<1	<1
Potassium (K)	<1	1	2	<1	1	<1

Additives (ppm)						
Magnesium (Mg)	21	27	30	52	44	34
Calcium (Ca)	77	91	96	154	109	92
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	227	224	236	258	257	247
Zinc (Zn)	28	37	40	73	58	47
Molybdenum (Mo)	<1	1	1	2	2	2
Boron (B)	78	86	73	91	92	88

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.6	6.9	6.6	6.8	6.7	7.0
Solids (%)	<0.1	0.1	0.1	<0.1	0.1	<0.1

Additional						
PQ Index	12	16	13	11	<10	16



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0916D7B

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 5300 OakBrook Parkway
 Building 200 Suite 245
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Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earl Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401

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International Locations

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Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

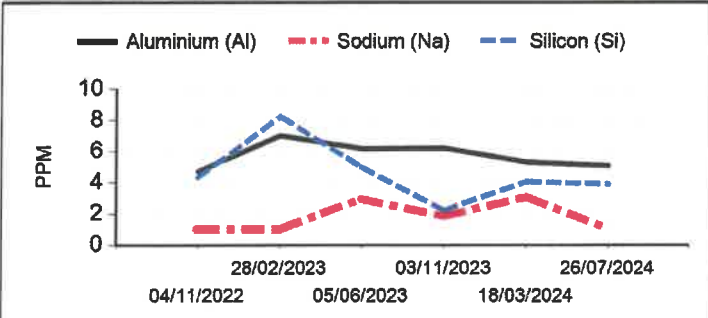
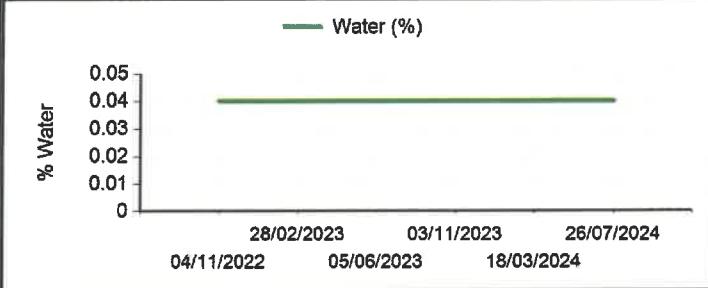
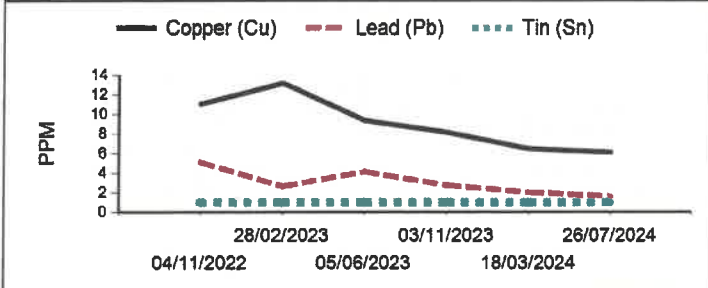
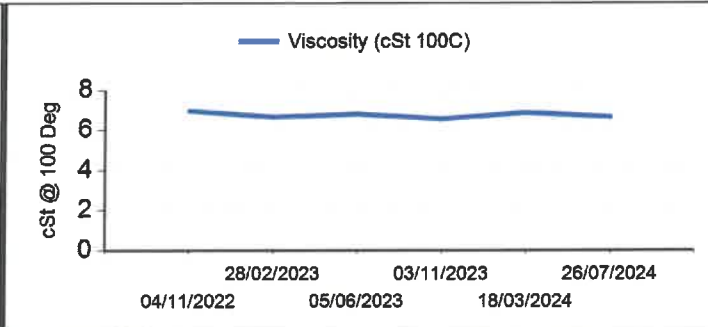
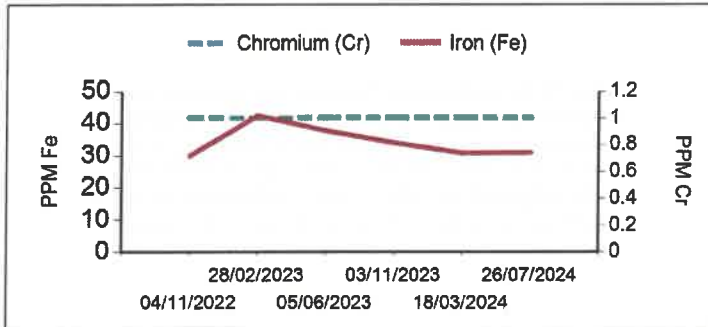
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0916D7A

Diesel Engine

Unit No. 2101

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:
Name Diesel Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	26-Jul-24	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23	04-Nov-22
DATE RECEIVED	14-Aug-24	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23	29-Dec-22
DATE REPORTED	15-Aug-24	25-Apr-24	11-Dec-23	24-Jun-23	10-Mar-23	30-Dec-22

LAB NO.	44023415909	44023318104	44023195910	43021792841	44022956864	44022901830
SIF NO.	702897548	702897578	701689959	701689894	700592806	700592819
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	12	9	9	11	18	11
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	6	3	4	12	5
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	5	2	5	8	6
Sodium (Na)	1	1	2	4	<1	<1
Potassium (K)	3	14	6	2	23	8

Additives (ppm)						
Magnesium (Mg)	402	714	776	798	704	722
Calcium (Ca)	1742	1248	1268	1418	1269	1300
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	830	675	754	770	658	719
Zinc (Zn)	986	807	841	908	750	802
Molybdenum (Mo)	5	10	3	4	3	6
Boron (B)	21	74	65	74	51	65

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.2	12.3	13.3	12.6	12.2	12.6
Fuel (%)	3.80	3.60	<1	1.70	3.20	1.70
PQ Index	10	11	<10	<10	<10	<10
Soot (%) Infrared D7844	0.2	0.2	0.2	0.2	0.3	0.2





UIN 0916D7A

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 5300 OakBrook Parkway
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 Kansas City, KS 66115
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International Locations

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Wellington

Southeast Asia

Kuala Lumpur, Singapore

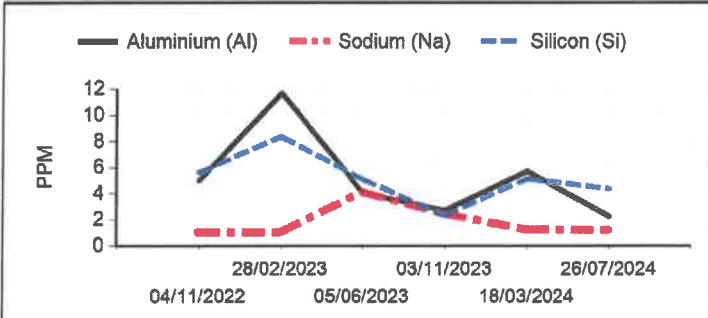
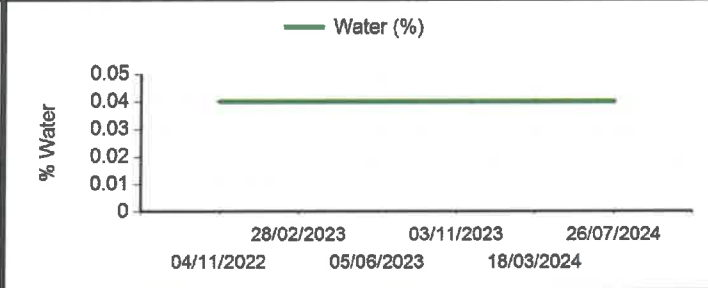
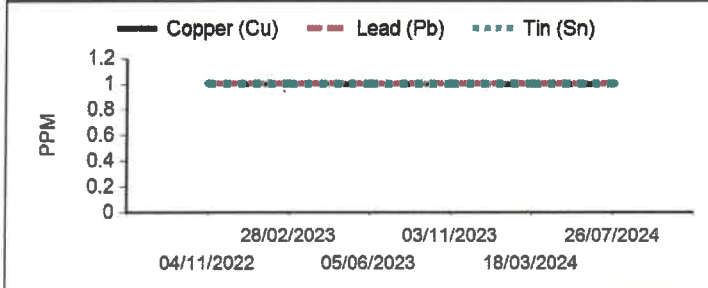
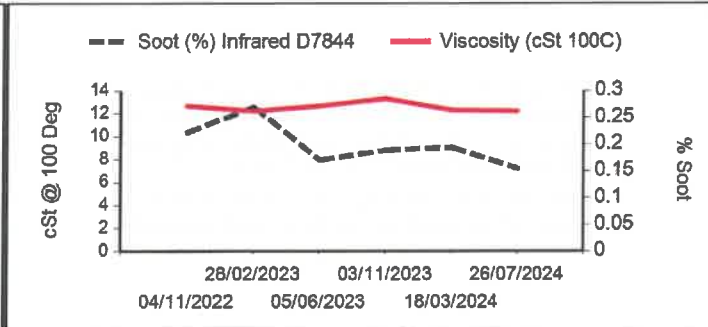
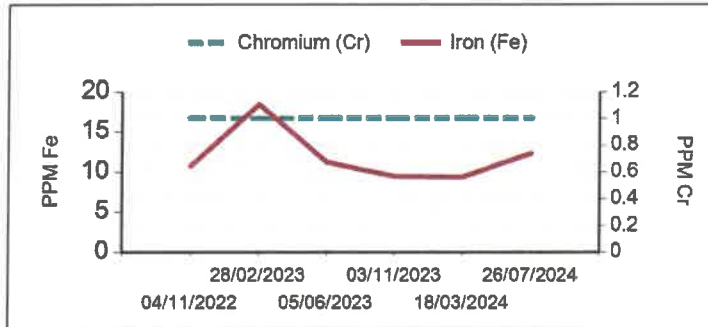
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 07E9276

Gasoline Engine

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	25-Jul-24	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22	01-Sep-22
DATE RECEIVED	14-Aug-24	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23	15-Sep-22
DATE REPORTED	15-Aug-24	25-Mar-24	22-Sep-23	26-May-23	20-Jan-23	19-Sep-22
LAB NO.	44023415905	44023289158	44023128374	44023023690	44022918310	44022821203
SIF NO.	702897546	702897582	701689914	701689969	700592868	700592857
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	12	15	16	10	10
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	2	2	2	2	2
Tin (Sn)	<1	<1	<1	<1	<1	2
Aluminium (Al)	1	4	4	2	3	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	12	14	25	14	13	15
Sodium (Na)	4	6	5	3	5	5
Potassium (K)	2	<1	1	<1	2	2
Additives (ppm)						
Magnesium (Mg)	539	534	516	476	451	439
Calcium (Ca)	1245	1580	1600	1306	1307	1193
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	658	767	725	648	602	593
Zinc (Zn)	815	949	861	794	736	722
Molybdenum (Mo)	280	315	309	286	268	254
Boron (B)	28	21	25	21	32	25
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	7.9	8.3	8.7	8.3	7.7	8.0
PQ Index	<10	<10	<10	<10	<10	<10



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UIN 07E9276

U.S. Laboratories

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 Valley View, OH 44125
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Wellington

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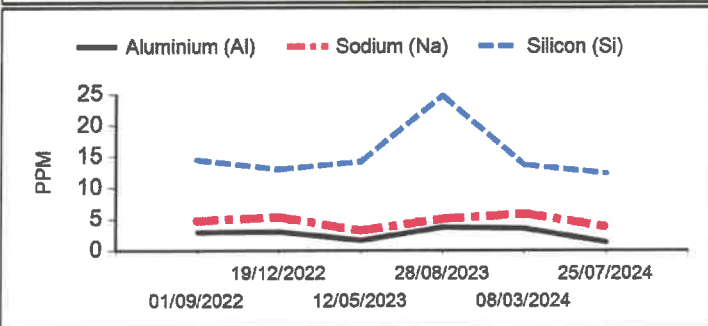
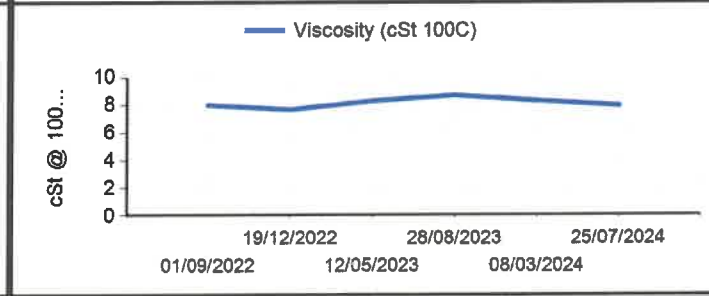
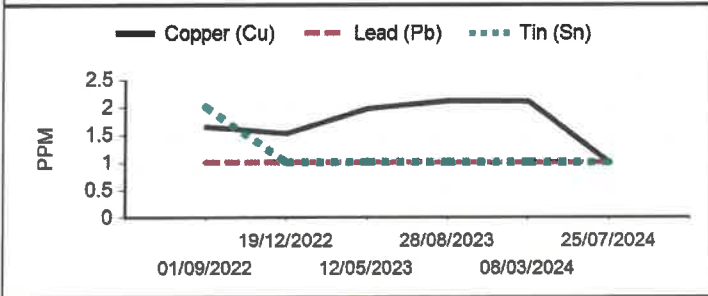
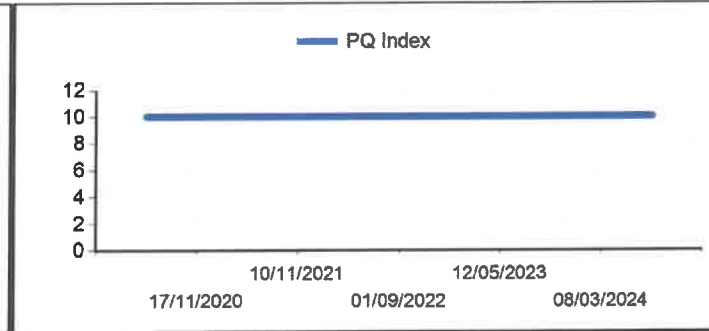
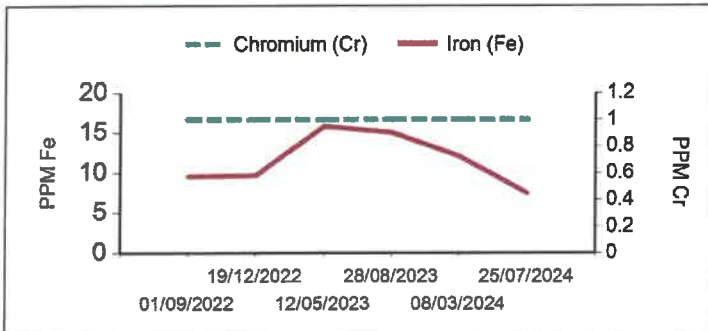
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08FF9B4

Gasoline Engine

Unit No. 2102

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD7NCNE1311

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	05-Aug-24	18-Apr-24	06-Dec-23	16-Aug-23	03-May-23	31-Jan-23
DATE RECEIVED	14-Aug-24	24-Apr-24	17-Jan-24	29-Aug-23	23-May-23	14-Feb-23
DATE REPORTED	15-Aug-24	25-Apr-24	19-Jan-24	30-Aug-23	26-May-23	16-Feb-23
LAB NO.	44023415912	44023318074	44023229557	44023107507	44023023688	44022938283
SIF NO.	705897544	702897570	702897528	701689909	701689966	700592840
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Delo 400
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	26	9	21	15	15	16
Chromium (Cr)	1	<1	1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	<1	<1	<1	<1	<1
Tin (Sn)	<1	1	<1	<1	<1	<1
Aluminium (Al)	10	6	14	4	14	26
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	4	7	5	5	6
Sodium (Na)	1	<1	<1	2	1	<1
Potassium (K)	11	11	19	7	23	50
Additives (ppm)						
Magnesium (Mg)	396	416	684	815	671	823
Calcium (Ca)	1676	1574	1138	1290	1134	1455
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	807	759	615	746	646	834
Zinc (Zn)	952	896	713	880	742	947
Molybdenum (Mo)	5	6	3	4	3	4
Boron (B)	20	45	58	58	64	89
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	12.0	11.5	12.4	12.6	11.4	12.4
PQ Index	<10	<10	<10	<10	<10	<10

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 08FF9B4

U.S. Laboratories

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 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

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 800.445.7930

Portland, Oregon - 401

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 800.770.4128

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

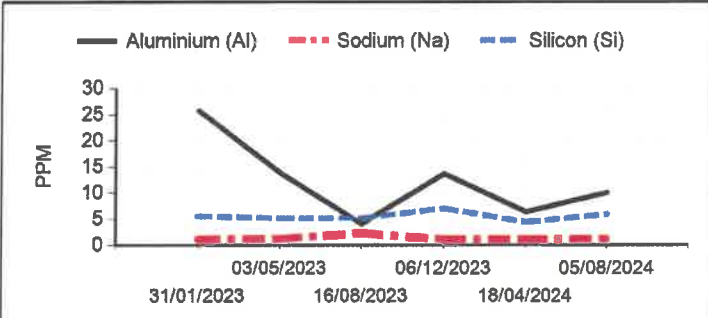
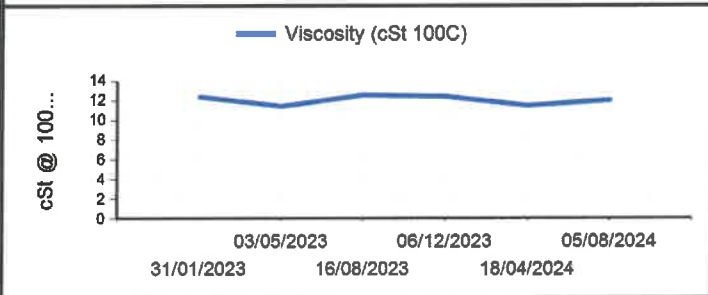
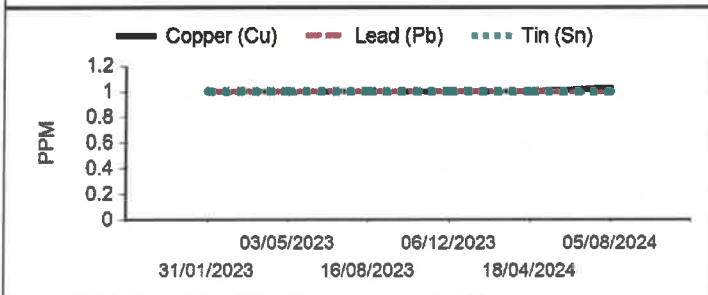
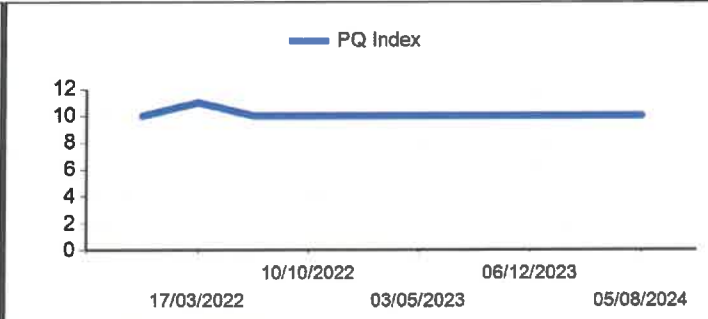
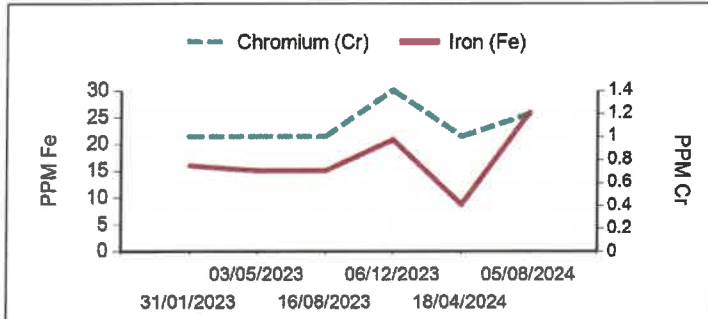
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 08FF9B5

Transmission

Unit No. 2102

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD7NCNE1311

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	05-Aug-24	18-Apr-24	06-Dec-23	16-Aug-23	03-May-23	31-Jan-23
DATE RECEIVED	14-Aug-24	24-Apr-24	17-Jan-24	29-Aug-23	23-May-23	14-Feb-23
DATE REPORTED	15-Aug-24	25-Apr-24	19-Jan-24	30-Aug-23	26-May-23	16-Feb-23

LAB NO.	44023415911	44023318075	44023229558	44023107508	44023023689	44022938284
SIF NO.	702897543	702897569	702897527	701689908	701689967	700592839
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt			8.0		
FILTER	mi					
OIL CHANGED	Changed	Changed	Not Changed	Changed	Not Changed	Not Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	35	33	30	28	24	27
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	1	<1	<1	<1	<1
Copper (Cu)	5	5	5	7	6	8
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	4	3	3	3	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	3	5	3	3	4
Sodium (Na)	<1	2	<1	1	1	<1
Potassium (K)	<1	1	<1	<1	<1	<1

Additives (ppm)						
Magnesium (Mg)	25	25	32	40	39	39
Calcium (Ca)	99	106	113	147	136	135
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	250	223	222	240	222	257
Zinc (Zn)	35	37	39	50	48	51
Molybdenum (Mo)	<1	<1	<1	<1	1	1
Boron (B)	88	84	85	76	78	89

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.6	6.6	6.7	6.7	6.8	6.7
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	15	16	12	11	15	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 08FF9B5

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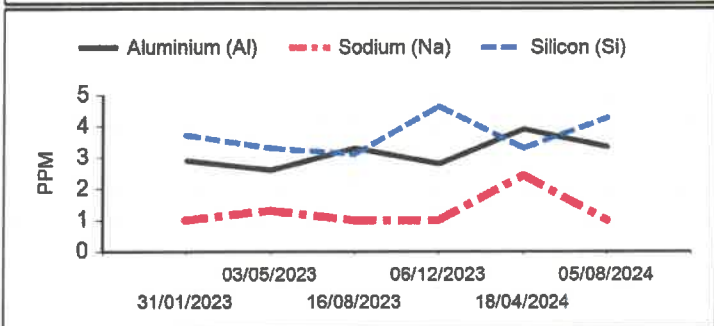
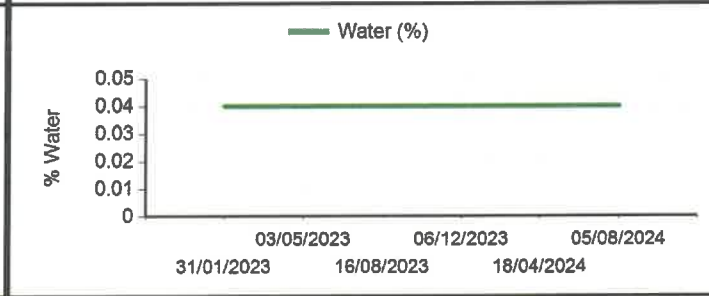
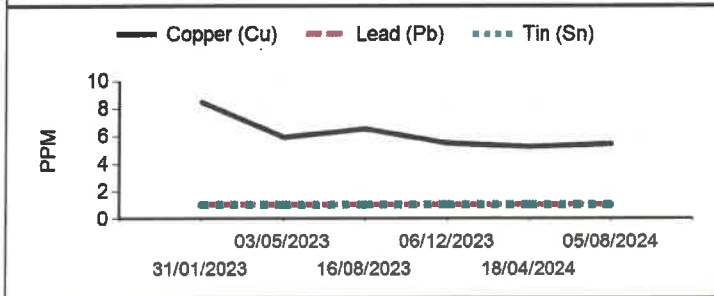
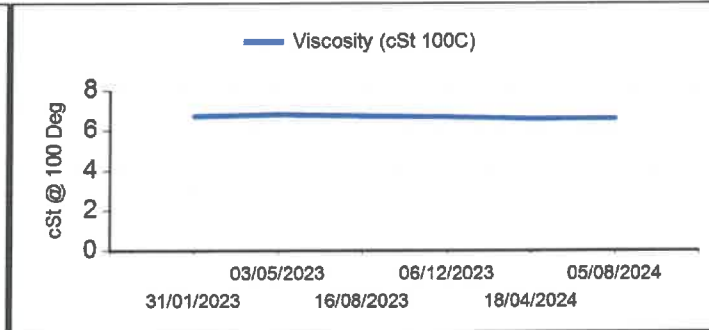
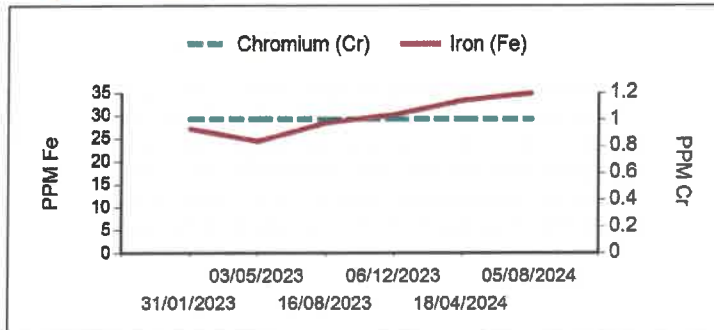
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

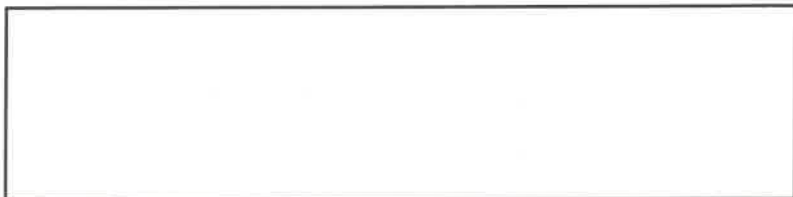
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 092B86F

Gasoline Engine

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFDONCNE1312

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	31-Jul-24	11-Mar-24	30-Oct-23	11-Jul-23	01-Feb-23	12-Oct-22
DATE RECEIVED	14-Aug-24	25-Mar-24	08-Nov-23	29-Aug-23	14-Feb-23	31-Oct-22
DATE REPORTED	15-Aug-24	26-Mar-24	10-Nov-23	30-Aug-23	16-Feb-23	02-Nov-22
LAB NO.	44023415907	44023289160	44023169869	44023107499	44022938406	44022856768
SIF NO.	702897542	702897580	701689946	701689900	700592845	700592855
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	10	9	15	22	16	18
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	12	5	6	18	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	2	5	6	5	7
Sodium (Na)	<1	3	2	2	<1	5
Potassium (K)	5	22	7	9	35	6
Additives (ppm)						
Magnesium (Mg)	392	800	685	803	691	733
Calcium (Ca)	1673	1337	1152	1297	1226	1268
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	815	761	650	736	704	709
Zinc (Zn)	954	876	735	865	799	815
Molybdenum (Mo)	5	11	3	3	3	6
Boron (B)	32	76	49	40	74	55
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	11.9	11.8	12.7	12.2	12.1	12.8
PQ Index	<10	<10	<10	<10	<10	<10

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 092B86F

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Kuala Lumpur, Singapore

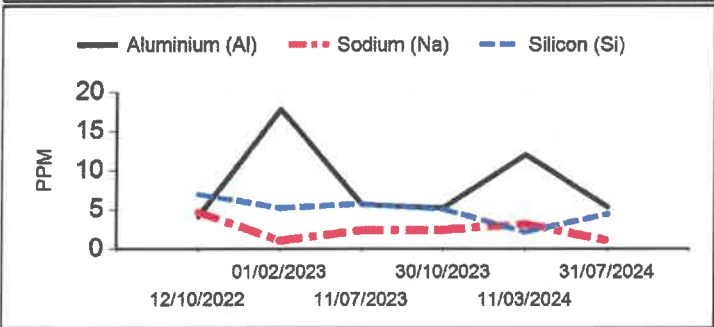
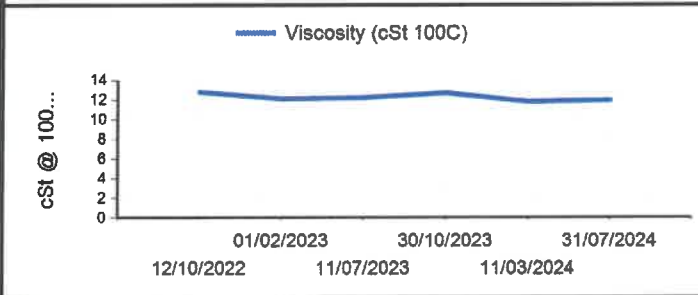
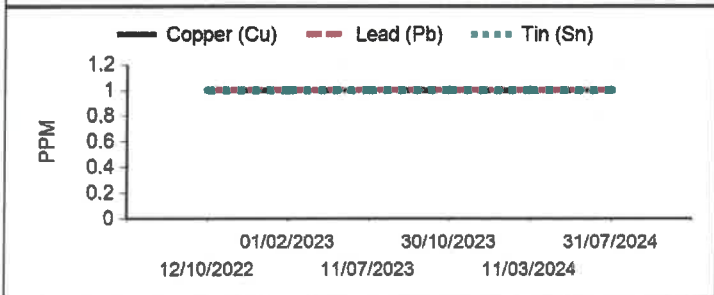
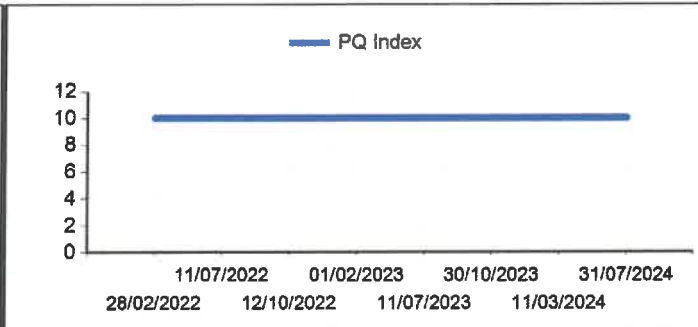
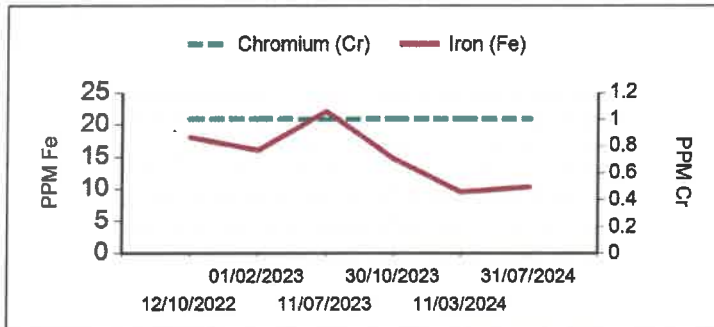
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
Base Number: ASTM D4739 (*M)
Base Number (Perchloric): ASTM D2896B, back (*M)
Fuel Dilution by GC: ASTM D7593
Fuel Dilution Visc/Setaflash In House
Fuel Soot ATR/IR: ASTM D7686 (*M)
Soot by FTIR: ASTM D7844
Glycol: In House
Metals by ICP AES: ASTM D5185 (*M)
Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
PQ Index: ASTM D8120 (*M)
Particle Count: ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
Water KF: D6304 / E203 (*M)
Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 086A56A

Transmission

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23	29-Sep-22
DATE RECEIVED	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23	14-Oct-22
DATE REPORTED	02-Jul-24	26-Mar-24	10-Nov-23	27-Jun-23	20-Jan-23	17-Oct-22
LAB NO.	44023376818	44023289152	44023169868	43021792840	44022918315	44022843563
SIF NO.	702897553	702897588	701689945	701689896	700592872	700592881
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	79	79	65	59	55	63
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	1
Copper (Cu)	9	13	11	12	15	17
Tin (Sn)	2	2	1	<1	<1	<1
Aluminium (Al)	46	46	25	20	20	20
Nickel (Ni)	2	2	2	2	2	3
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	9	<1	6	6	5	7
Sodium (Na)	2	3	2	3	6	1
Potassium (K)	1	<1	<1	<1	2	1
Additives (ppm)						
Magnesium (Mg)	2	1	3	6	2	2
Calcium (Ca)	124	143	118	162	128	132
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	184	211	183	212	200	215
Zinc (Zn)	4	10	5	18	5	5
Molybdenum (Mo)	2	3	3	5	5	6
Boron (B)	71	62	65	83	77	97
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.7	5.8	5.8	5.8	5.7	5.6
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	19	17	21	14	<10	13

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UIN 086A56A

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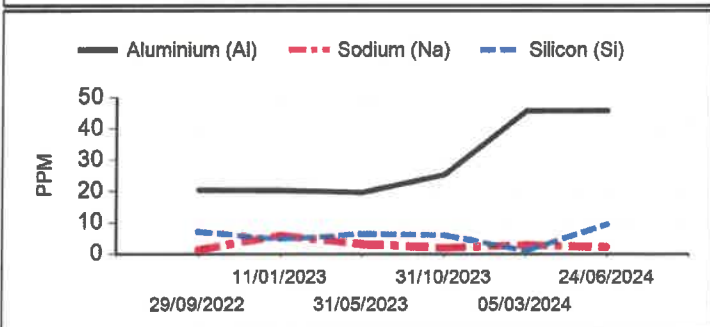
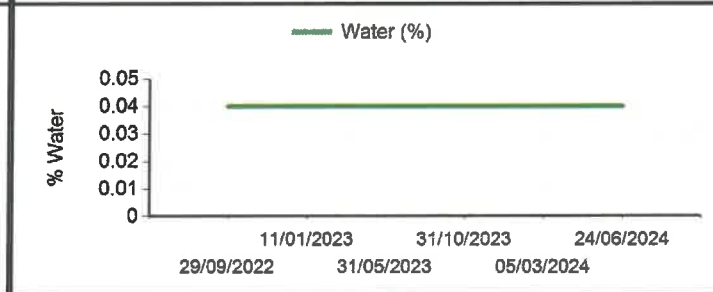
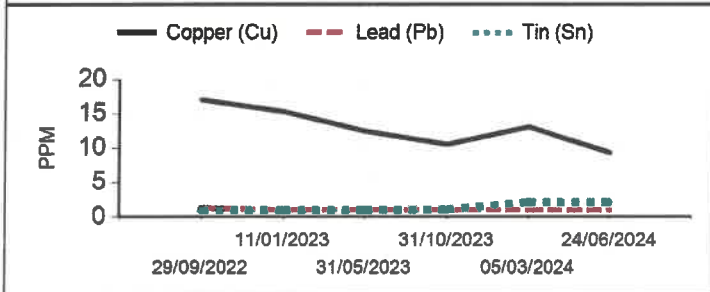
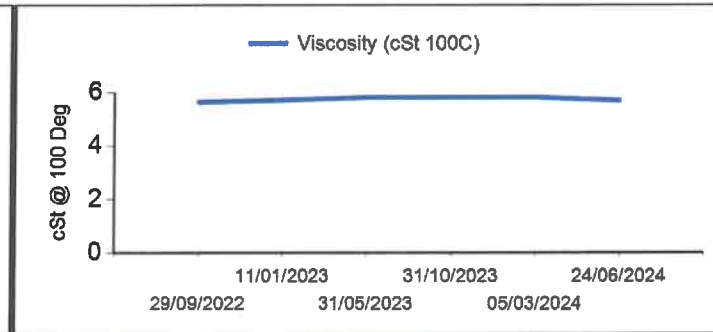
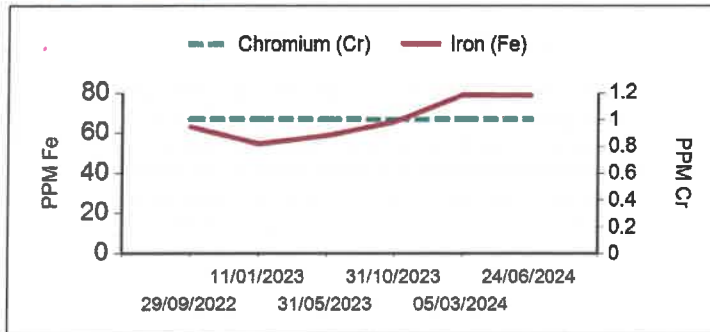
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05CEDA5

Transmission

Unit No. 1602

Unit:
Make Freightliner
Model .
Serial No. 4UZADRDU0HCJC8217

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	07-Aug-24	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23	22-Sep-22
DATE RECEIVED	14-Aug-24	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23	14-Oct-22
DATE REPORTED	15-Aug-24	25-Apr-24	11-Dec-23	18-Jul-23	13-Mar-23	17-Oct-22

LAB NO.	44023415904	44023318109	44023195907	44023069479	44022956869	44022843565
SIF NO.	702897540	702897573	701689957	701689986	700592800	700592883
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt				8.0	8.0
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Not Changed	Not Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	27	23	23	25	36	45
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	3	3	3	4	3	6
Copper (Cu)	18	14	15	18	25	28
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	3	3	4	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	3	2	5	7	6
Sodium (Na)	<1	<1	<1	<1	<1	<1
Potassium (K)	<1	1	2	<1	<1	<1

Additives (ppm)						
Magnesium (Mg)	28	24	28	34	33	19
Calcium (Ca)	127	93	109	137	125	86
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	237	217	237	226	238	213
Zinc (Zn)	52	36	42	48	56	47
Molybdenum (Mo)	<1	<1	<1	1	1	1
Boron (B)	77	84	72	85	85	96

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.5	6.6	6.7	6.6	6.5	6.4
Solids (%)	<0.1	<0.1	0.1	<0.1	0.1	<0.1

Additional						
PQ Index	<10	12	13	13	<10	<10

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 05CEDA5

U.S. Laboratories

Atlanta, Georgia - 420 5300 OakBrook Parkway Building 200 Suite 245 Norcross, GA 30093 800.394.3669	Valley View, Ohio - 410 6180 Halle Dr. Suite D Valley View, OH 44125 800.726.5400
--	---

Kansas City, Kansas - 430 935 Sunshine Road Kansas City, KS 66115 800.332.8055	Phoenix, Arizona - 440 3319 West Earl Drive Phoenix, AZ 85017 800.445.7930
--	--

Portland, Oregon - 401

4943 NW Front Avenue
Portland, OR 97210
800.770.4128

Canadian Laboratories

Burlington, Ontario - 450 5036 South Service Rd. Burlington, ON L7L5Y7 905 332 9559	Edmonton, Alberta - 402 9450 17 Ave NW Edmonton, AB T6N 1M9 +1 (780) 483-1036
---	---

Sales & Marketing

Houston, Texas

10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

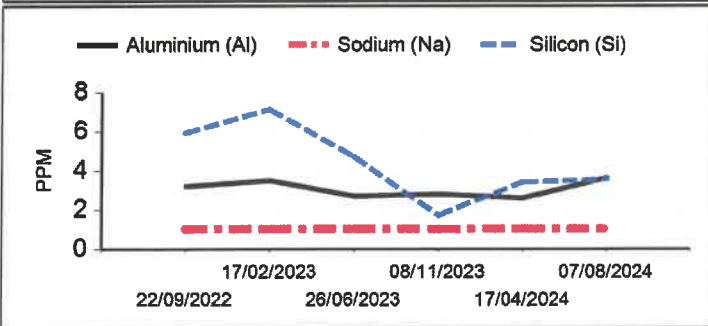
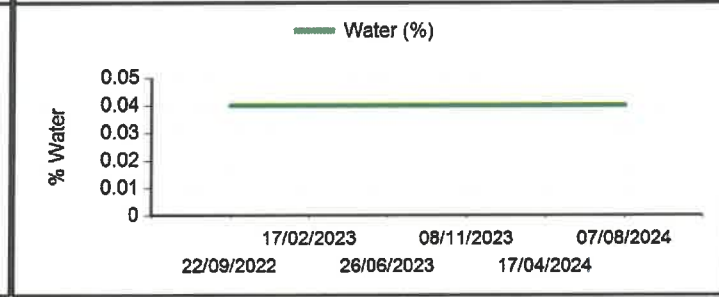
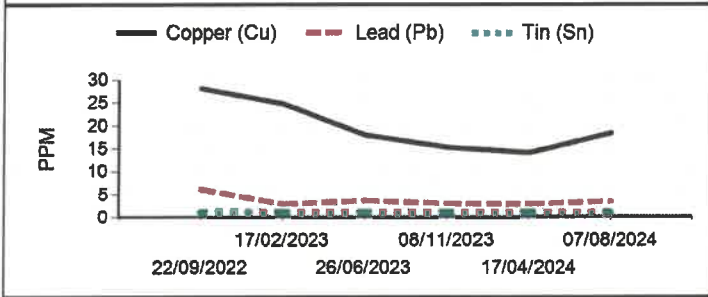
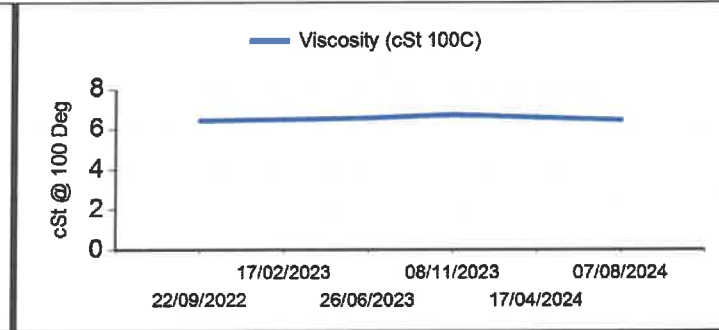
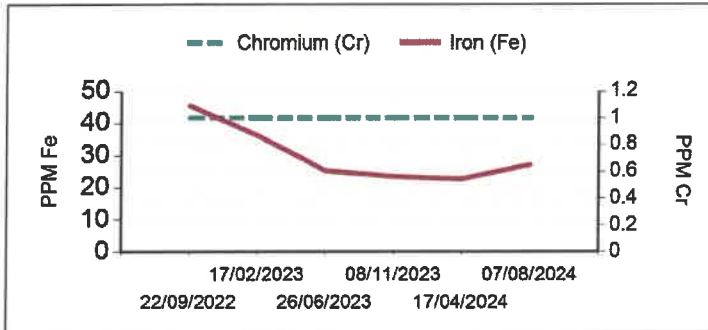
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046DF

Gasoline Engine

Unit No. 1904

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM6KKB48491

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Silicon level (dirt/sealant material) is at a severe level. Water content satisfactory. Viscosity within specified operating range. Action: Check all dirt access points. As oil and filter(s) already changed, resample after corrective action to further monitor.

ANALYST: aaron.cotton

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

DATE SAMPLED	16-Jul-24	19-Jan-24	07-Sep-23	26-May-23	07-Feb-23	07-Oct-22
DATE RECEIVED	31-Jul-24	13-Feb-24	20-Sep-23	23-Jun-23	14-Feb-23	14-Oct-22
DATE REPORTED	02-Aug-24	14-Feb-24	25-Sep-23	24-Jun-23	16-Feb-23	17-Oct-22

LAB NO.	44023403757	44023253078	44023128161	43021792845	44022938287	44022843557
SIF NO.	702897501	702897514	701689913	701689899	700592843	700592886
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0		6.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	22	125	16	25	11	16
Chromium (Cr)	<1	3	<1	<1	<1	<1
Lead (Pb)	1	<1	<1	<1	<1	<1
Copper (Cu)	48	7	2	2	1	2
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	7	71	4	5	1	2
Nickel (Ni)	<1	1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	146	46	23	17	11	26
Sodium (Na)	20	8	5	9	<1	12
Potassium (K)	18	2	1	<1	<1	2

Additives (ppm)						
Magnesium (Mg)	404	600	579	579	502	503
Calcium (Ca)	1303	1627	1706	1706	1346	1412
Barium (Ba)	18	10	<1	<1	<1	<1
Phosphorus (P)	691	821	825	772	724	660
Zinc (Zn)	821	1051	1040	990	889	790
Molybdenum (Mo)	137	335	335	346	196	290
Boron (B)	63	23	29	24	46	23

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.0	9.9	8.8	9.0	8.4	8.9
PQ Index	<10	<10	<10	<10	<10	<10





UIN 08046DF

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401
 4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

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 905 332 9559

Edmonton, Alberta - 402
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 +1 (780) 483-1036

Sales & Marketing
 Houston, Texas

10450 Stancilff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia
 Brisbane, Perth, Sydney, Muswellbrook

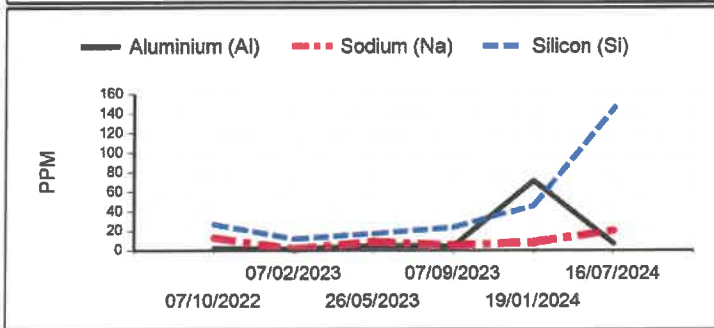
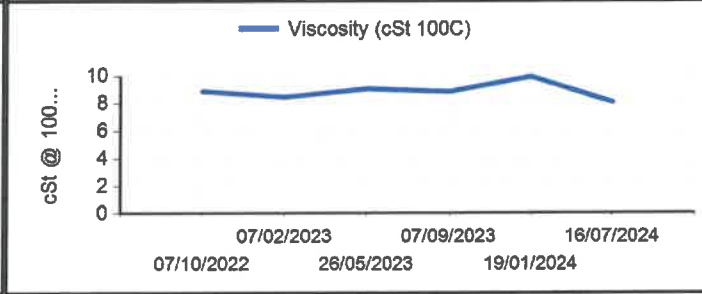
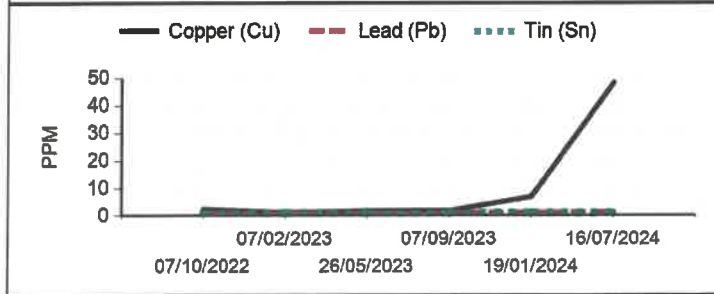
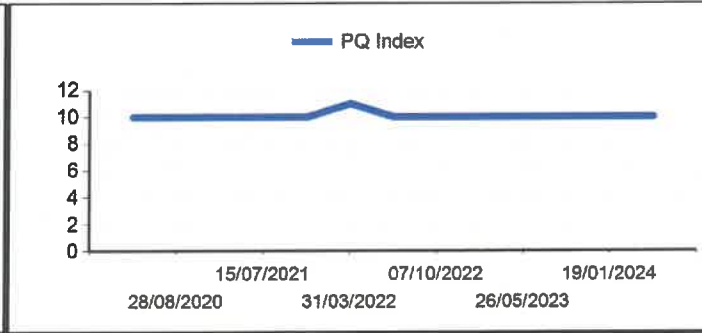
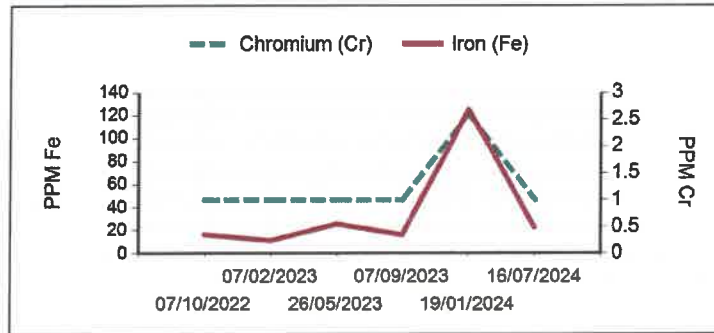
South America
 Santiago de Chile, Belo Horizonte, Brazil

New Zealand Wellington
Southeast Asia Kuala Lumpur, Singapore
Europe Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

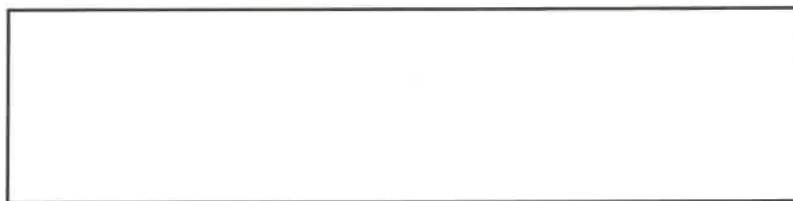
*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0AC42C4

Gasoline Engine

Unit No. 2401

Unit: Ford
Make: E-450
Model: 1FDFE4FNXRDD38867
Serial No.

Site

Compartment:

Name: Gasoline Engine
Make
Model
Serial No.
Capacity:

Customer: PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: DATE SAMPLED (12-Jul-24), DATE RECEIVED (31-Jul-24), DATE REPORTED (02-Aug-24)

Table with 2 columns: LAB NO. (44023403748), SIF NO. (702897508), TIME ON UNIT (mi), OIL BRAND (Unidentified), OIL TYPE (Unidentified), OIL GRADE (SAE 5W30), OIL ADDED (8.0), FILTER (mi), OIL CHANGED (Changed), WO NUMBER

Table with 2 columns: Metals (ppm) including Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V)

Table with 2 columns: Contaminants (ppm) including Silicon (Si), Sodium (Na), Potassium (K)

Table with 2 columns: Additives (ppm) including Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B)

Table with 2 columns: Contaminants including Water (%), Coolant

Table with 2 columns: Physical Tests including Viscosity (cSt 100C), PQ Index



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal, Severe, Abnormal, Caution, and Normal

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UIN 0AC42C4

U.S. Laboratories

- | | |
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6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400 |
| Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055 | Phoenix, Arizona - 440
3319 West Earll Drive
Phoenix, AZ 85017
800.445.7930 |
| Portland, Oregon - 401
4943 NW Front Avenue
Portland, OR 97210
800.770.4128 | |

Canadian Laboratories

- | | |
|---|---|
| Burlington, Ontario - 450
5036 South Service Rd.
Burlington, ON L7L5Y7
905 332 9559 | Edmonton, Alberta - 402
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036 |
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Houston, TX 77099
877.835.8437

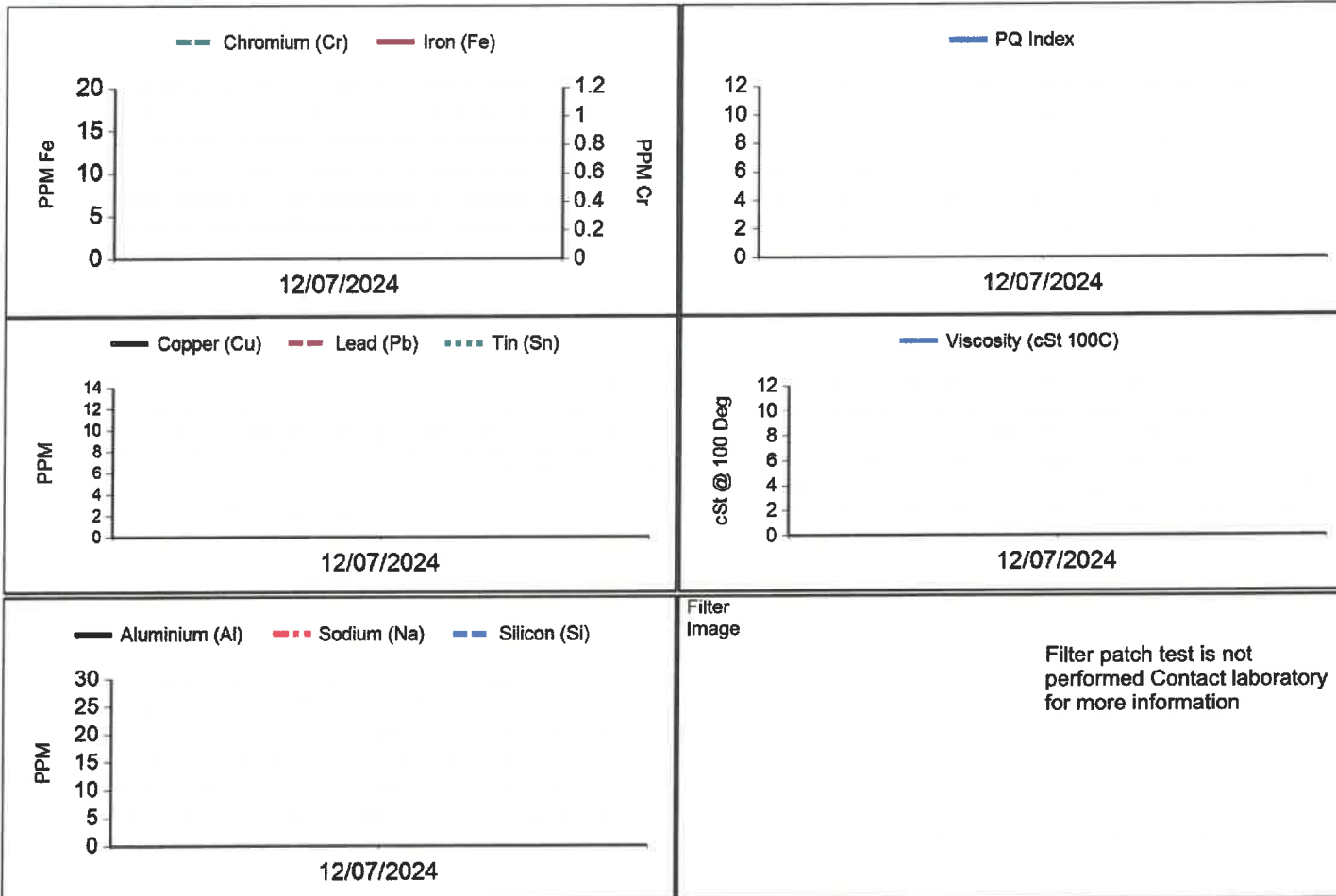
International Locations

- | | | |
|---|---|-------------------------|
| Australia
Brisbane, Perth, Sydney, Muswellbrook | South America
Santiago de Chile, Belo Horizonte, Brazil | Europe
Prague |
| New Zealand
Wellington | Southeast Asia
Kuala Lumpur, Singapore | |

TEST METHODS:

- | | |
|------------------------------|---------------------------------|
| Acid Number: | ASTM D974/D664 (*M) |
| Base Number: | ASTM D4739 (*M) |
| Base Number (Perchloric): | ASTM D2896B, back (*M) |
| Fuel Dilution by GC: | ASTM D7593 |
| Fuel Dilution Visc/Setaflash | In House |
| Fuel Soot ATR/IR: | ASTM D7686 (*M) |
| Soot by FTIR: | ASTM D7844 |
| Glycol: | In House |
| Metals by ICP AES: | ASTM D5185 (*M) |
| Ox, NOx, SOx, FTIR: | ASTM E2412/D7418/D7414
D7415 |
| PQ Index: | ASTM D8120 (*M) |
| Particle Count: | ASTM D7647 (*M) / ISO 4406 |
| Kinematic Viscosity: | ASTM D445 (*M) / D7279 (*M) |
| Water KF: | D6304 / E203 (*M) |
| Water Crackle: | In House |

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42C5

Transmission

Unit No. 2401

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4FNXRDD38867

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	12-Jul-24
DATE RECEIVED	31-Jul-24
DATE REPORTED	02-Aug-24

LAB NO.	44023403754
SIF NO.	702897507
TIME ON UNIT	mi
TIME ON OIL	mi
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	Unknown
OIL ADDED	
FILTER	mi
OIL CHANGED	Not Changed
WO NUMBER	

Metals (ppm)	
Iron (Fe)	34
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	36
Tin (Sn)	<1
Aluminium (Al)	15
Nickel (Ni)	3
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)	
Silicon (Si)	6
Sodium (Na)	5
Potassium (K)	1

Additives (ppm)	
Magnesium (Mg)	1
Calcium (Ca)	122
Barium (Ba)	1
Phosphorus (P)	185
Zinc (Zn)	4
Molybdenum (Mo)	13
Boron (B)	71

Contaminants	
Water (%)	<0.05

Physical Tests	
Viscosity (cSt 100C)	5.7
Solids (%)	0.1

Additional	
PQ Index	13



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42C5

U.S. Laboratories

Atlanta, Georgia - 420 5300 OakBrook Parkway
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Norcross, GA 30093
800.394.3669

Valley View, Ohio - 410 6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430 935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440 3319 West Earll Drive
Phoenix, AZ 85017
800.445.7930

Portland, Oregon - 401

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800.770.4128

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Burlington, ON L7L5Y7
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Edmonton, Alberta - 402 9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

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Houston, TX 77099
877.835.8437

International Locations

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South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

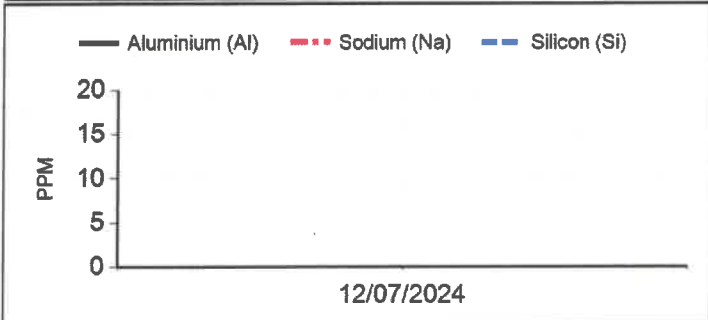
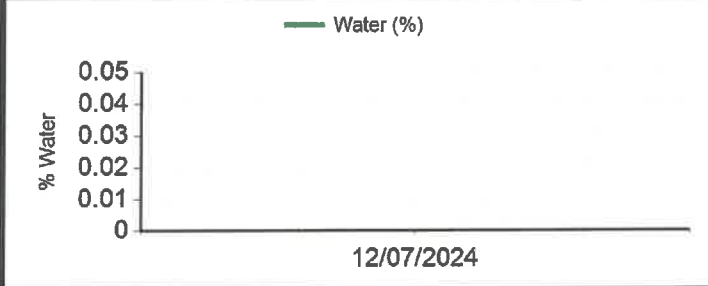
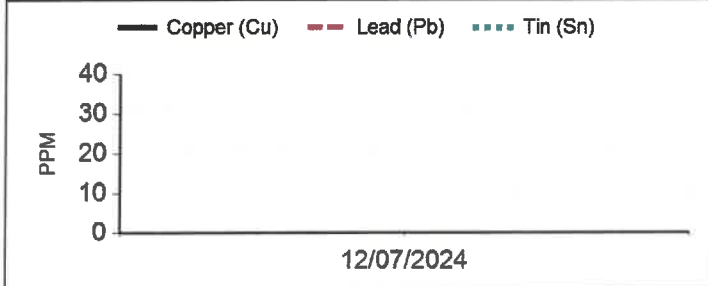
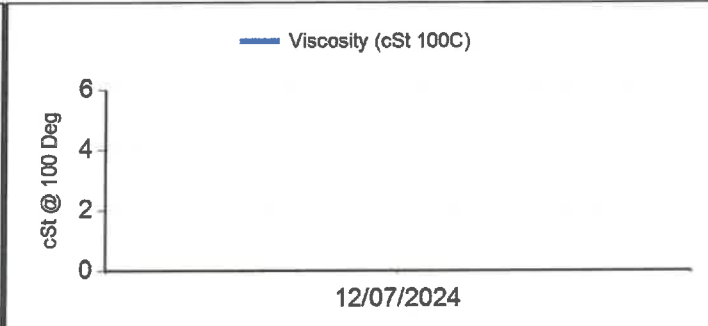
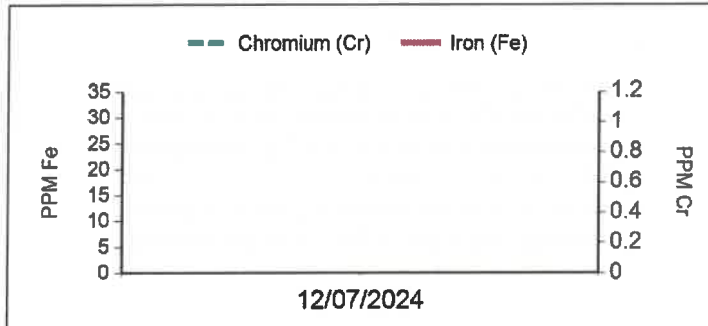
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 037EDBC

Transmission

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19
DATE RECEIVED	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19
DATE REPORTED	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	01-Aug-19	21-Feb-19

LAB NO.	44023403755	44023318076	44022978409	44022189833	44022068760	44021980491
SIF NO.	702897500	702897572	701689926	34144404	35084630	35084600
TIME ON UNIT	mi					
TIME ON OIL	mi			26000	20000	20000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt					
FILTER	mi	Not Applicable		6.0	6.0	6.0
OIL CHANGED		Not Changed	Changed	Changed	Changed	Changed
WO NUMBER		Changed				

Metals (ppm)						
Iron (Fe)	23	12	27	40	36	20
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	17	4	19	35	25	15
Tin (Sn)	1	1	3	5	2	2
Aluminium (Al)	6	4	13	23	18	11
Nickel (Ni)	2	<1	<1	<1	1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	14	10	4	4	3	2
Sodium (Na)	6	6	<1	2	5	1
Potassium (K)	4	4	<1	2	<1	1

Additives (ppm)						
Magnesium (Mg)	<1	<1	3	2	2	2
Calcium (Ca)	119	108	130	122	120	99
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	186	187	191	190	177	162
Zinc (Zn)	4	3	6	5	5	4
Molybdenum (Mo)	<1	<1	2	<1	<1	<1
Boron (B)	78	89	71	57	56	52

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.9	7.0	5.7	6.3
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	15	18	11	10	131	124



ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 037EDBC

U.S. Laboratories

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 Building 200 Suite 245
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Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

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 Kansas City, KS 66115
 800.332.8055

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 Phoenix, AZ 85017
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 800.770.4128

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 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

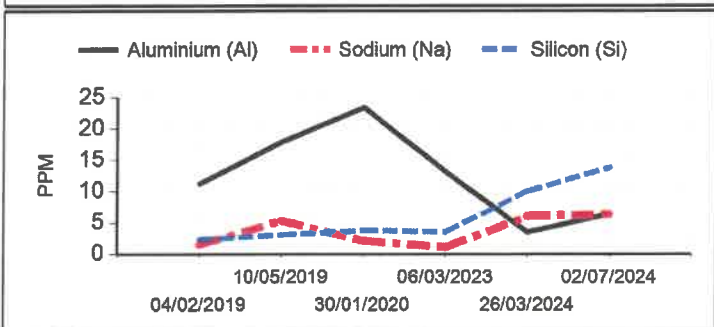
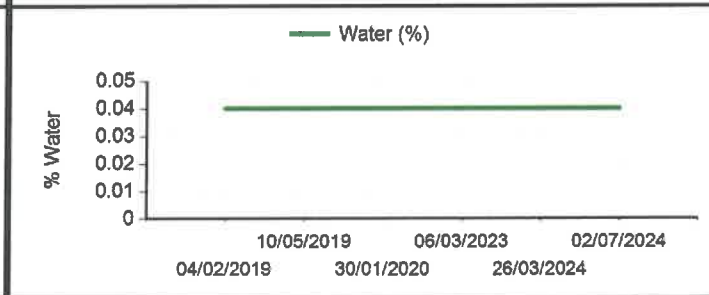
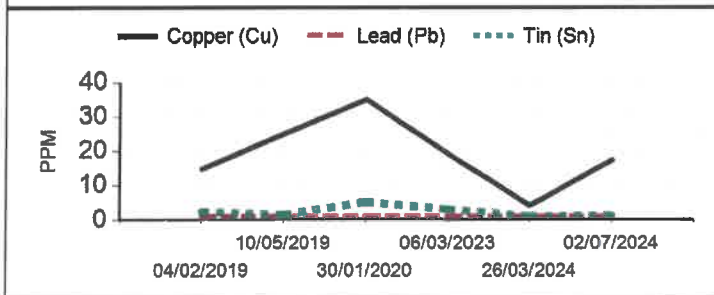
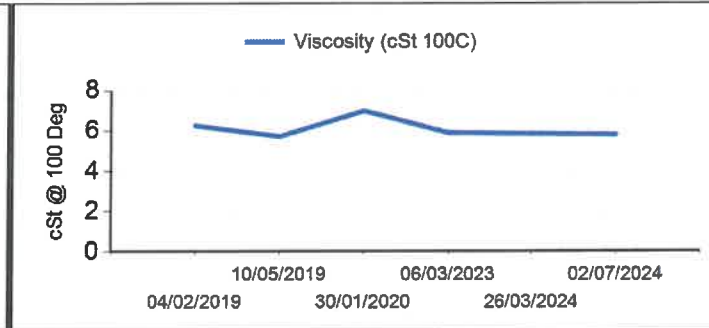
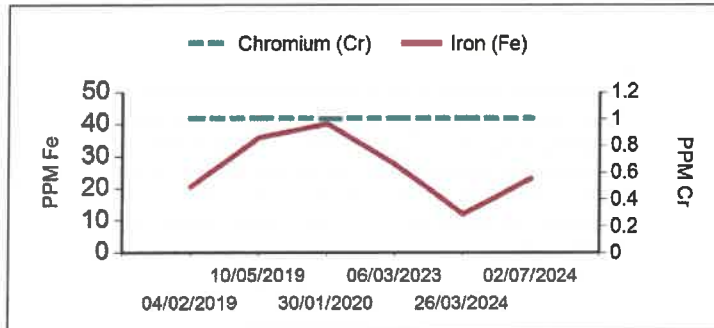
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 03521F8

Gasoline Engine

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity high for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19
DATE RECEIVED	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19
DATE REPORTED	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	31-Jul-19	21-Feb-19
LAB NO.	44023403756	44023318110	44022978408	44022189832	44022068748	44021980367
SIF NO.	702897499	702897571	701689927	34144406	35084634	35084595
TIME ON UNIT	mi					
TIME ON OIL	mi			6000	6000	6000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	11	24	9	11	9	12
Chromium (Cr)	<1	1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	1	<1	<1
Aluminium (Al)	3	6	2	4	4	3
Nickel (Ni)	<1	1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	11	14	13	14	12	13
Sodium (Na)	5	4	<1	4	4	6
Potassium (K)	<1	2	<1	2	2	1
Additives (ppm)						
Magnesium (Mg)	538	486	545	542	503	480
Calcium (Ca)	1401	1405	1463	1255	1191	1220
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	683	678	731	771	647	624
Zinc (Zn)	861	856	861	881	773	791
Molybdenum (Mo)	290	290	312	192	163	169
Boron (B)	20	19	60	47	21	25
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.6	9.8	8.2	8.4	9.4	9.3
PQ Index	<10	12	<10	<10	<10	<10



UIN 03521F8

U.S. Laboratories

Atlanta, Georgia - 420
 5300 Oak Brook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
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Wellington

Southeast Asia

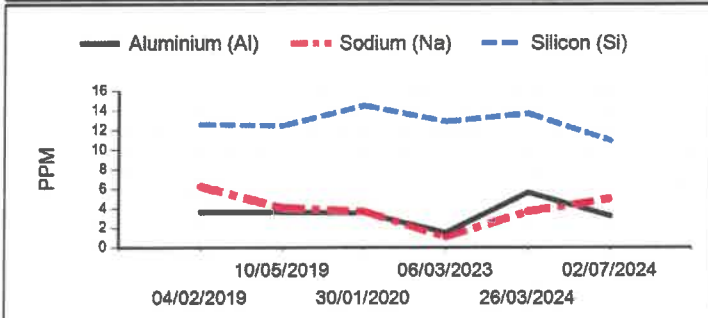
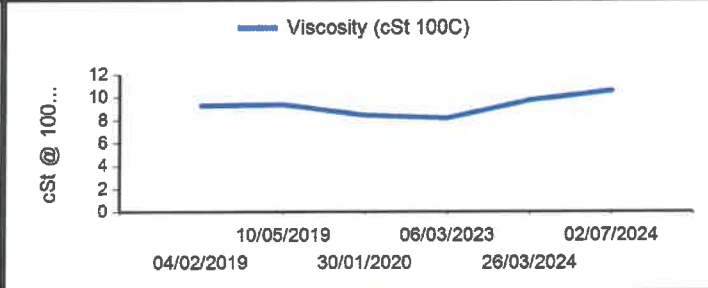
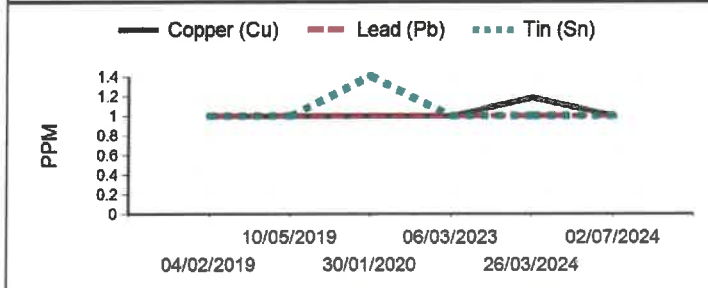
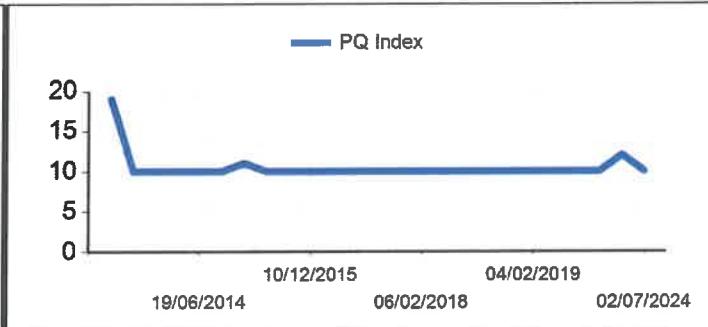
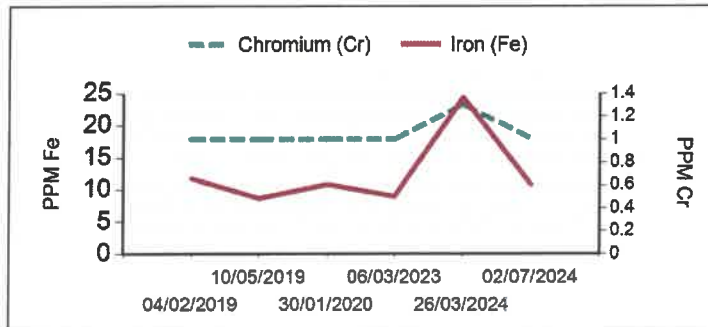
Kuala Lumpur, Singapore

Europe

Prague

TEST METHODS:

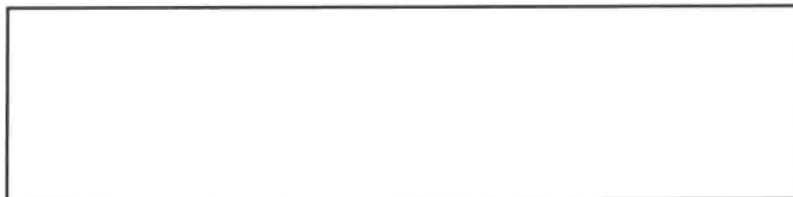
Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House
*M - Modified Method	



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 06405F1

Diesel Engine

Unit No. 1601

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU9HCJC8216

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7

Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21	22-Apr-21
DATE RECEIVED	31-Jul-24	05-Mar-24	30-Aug-22	20-Apr-22	10-Dec-21	10-May-21
DATE REPORTED	02-Aug-24	06-Mar-24	01-Sep-22	24-Apr-22	14-Dec-21	11-May-21

LAB NO.	44023403749	44023270760	44022810876	44022710219	44022619008	44022470742
SIF NO.	702897503	702897535	700592794	39776170	39776216	38635041
TIME ON UNIT						6000
TIME ON OIL	mi	mi				
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	qt				
FILTER	mi	mi				
OIL CHANGED	Changed	Changed		Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	16	74	6	16	8	7
Chromium (Cr)	<1	2	<1	<1	<1	<1
Lead (Pb)	<1	<1	3	<1	<1	<1
Copper (Cu)	<1	2	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	26	2	8	3	1
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	9	3	6	5	5
Sodium (Na)	2	3	3	3	1	1
Potassium (K)	4	29	2	10	3	1

Additives (ppm)						
Magnesium (Mg)	390	773	580	652	682	675
Calcium (Ca)	1796	1422	1118	1409	1272	1162
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	794	808	559	713	728	767
Zinc (Zn)	964	849	649	814	811	838
Molybdenum (Mo)	6	5	8	88	8	10
Boron (B)	26	35	77	178	87	111

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.3	11.9	12.7	12.1	12.5	13.8
Fuel (%)	3.40	5.0	1.60	3.50	3.20	<1
PQ Index	<10	<10	<10	14	<10	<10
Soot (%) Infrared D7844	0.4	0.8	0.2	0.3	0.2	0.1





UIN 06405F1

U.S. Laboratories

Atlanta, Georgia - 420
5300 OakBrook Parkway
Building 200 Suite 245
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800.394.3669

Valley View, Ohio - 410
6180 Halle Dr. Suite D
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Wellington

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Kuala Lumpur, Singapore

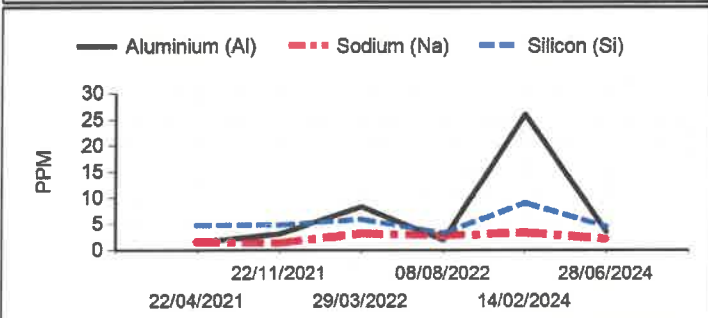
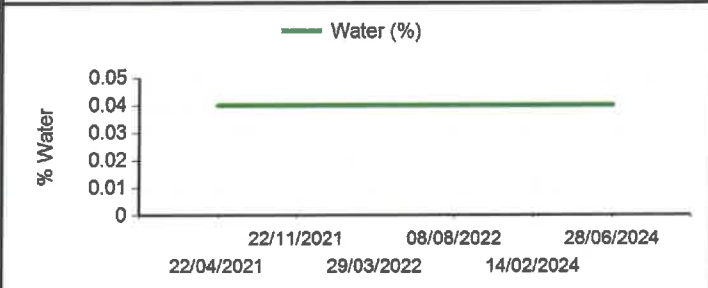
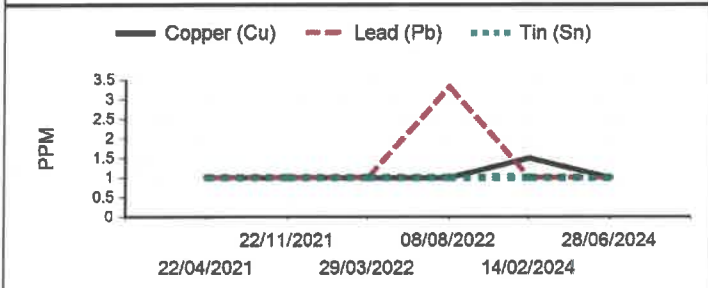
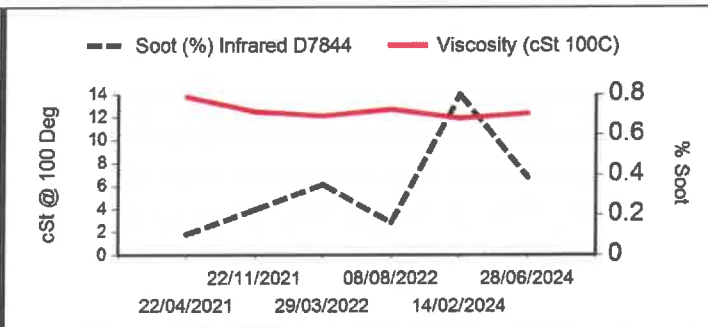
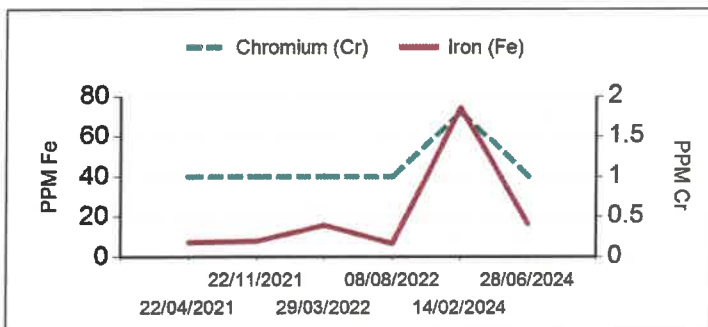
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

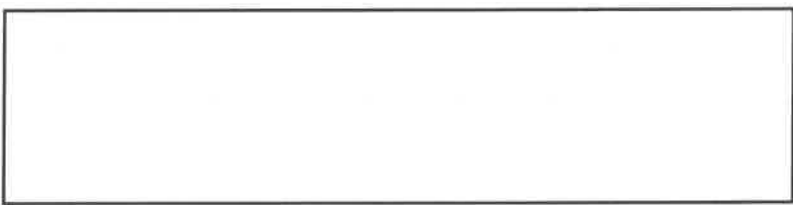
*M - Modified Method



Filter Image

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UIN 06405F2

Transmission

Unit No. 1601

Unit:
Make Freightliner
Model .
Serial No. 4UZADRDU9HCJC8216

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21	22-Apr-21
DATE RECEIVED	31-Jul-24	05-Mar-24	30-Aug-22	04-May-22	10-Dec-21	10-May-21
DATE REPORTED	02-Aug-24	06-Mar-24	01-Sep-22	05-May-22	14-Dec-21	11-May-21

LAB NO.	44023403753	44023270761	44022810875	44022722126	44022619009	44022470743
SIF NO.	702897504	702897536	700592793	39776155	39776220	38635044
TIME ON UNIT	mi					
TIME ON OIL	mi			12000		12000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0			8.0	
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	21	27	8	15	16	16
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	1	2	4	2	2	2
Copper (Cu)	8	10	3	6	6	6
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	2	1	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

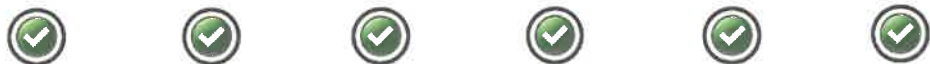
Contaminants (ppm)						
Silicon (Si)	4	4	4	4	5	4
Sodium (Na)	2	2	1	4	2	<1
Potassium (K)	<1	<1	<1	<1	1	<1

Additives (ppm)						
Magnesium (Mg)	25	43	35	19	3	6
Calcium (Ca)	78	106	82	87	69	48
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	228	300	222	253	208	209
Zinc (Zn)	41	68	51	48	30	21
Molybdenum (Mo)	2	3	2	1	<1	<1
Boron (B)	85	98	84	85	88	81

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.7	6.9	7.1	6.8	6.8	7.0
Solids (%)	0.1	<0.1	<0.1	0.1	<0.1	<0.1

Additional						
PQ Index	10	11	<10	11	<10	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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800.332.8055

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

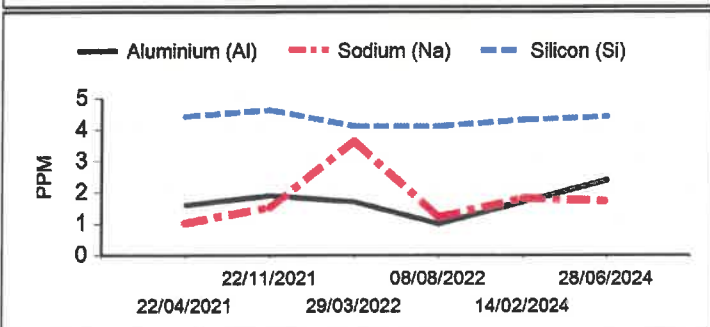
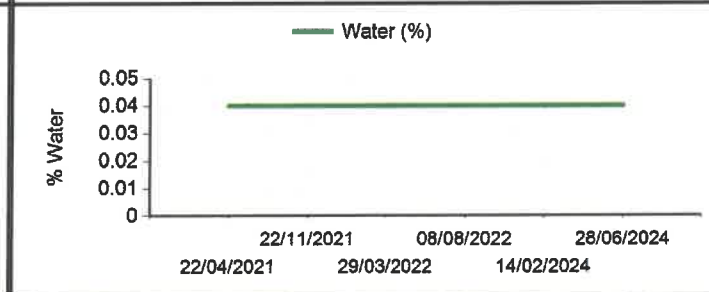
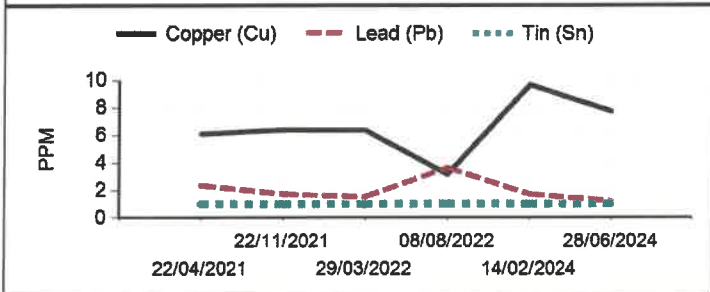
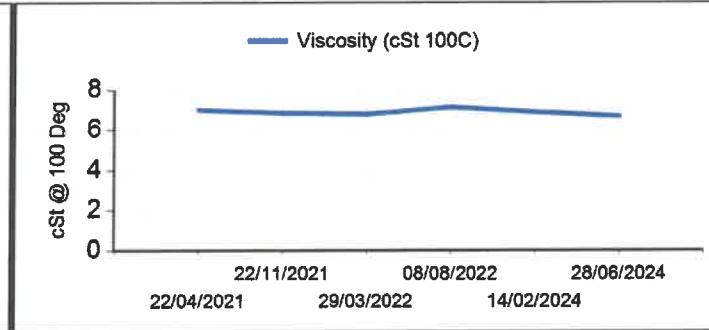
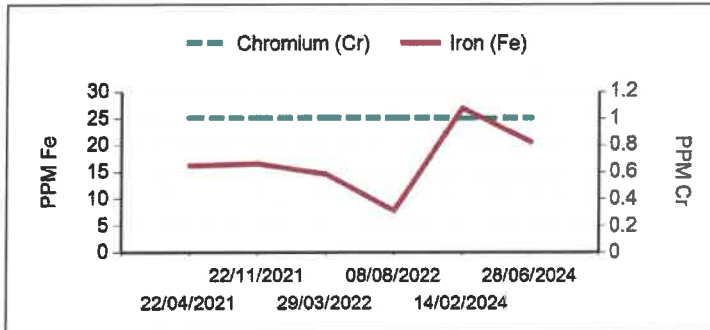
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
Base Number: ASTM D4739 (*M)
Base Number (Perchloric): ASTM D2896B, back (*M)
Fuel Dilution by GC: ASTM D7593
Fuel Dilution Visc/Setaflash In House
Fuel Soot ATR/IR: ASTM D7686 (*M)
Soot by FTIR: ASTM D7844
Glycol: In House
Metals by ICP AES: ASTM D5185 (*M)
Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
PQ Index: ASTM D8120 (*M)
Particle Count: ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
Water KF: D6304 / E203 (*M)
Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0AC42CE

Gasoline Engine

Unit No. 2404

Unit:
Make Ford
Model E-450
Serial No. 1FDEFE4FN6RDD39191

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 8.0 qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	25-Jun-24
DATE RECEIVED	31-Jul-24
DATE REPORTED	02-Aug-24

LAB NO.	44023403750
SIF NO.	702897505
TIME ON UNIT	mi
TIME ON OIL	mi
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	SAE 5W30
OIL ADDED	qt 8.0
FILTER	mi
OIL CHANGED	Changed
WO NUMBER	

Metals (ppm)	
Iron (Fe)	7
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	2
Tin (Sn)	<1
Aluminium (Al)	2
Nickel (Ni)	1
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)	
Silicon (Si)	17
Sodium (Na)	5
Potassium (K)	1

Additives (ppm)	
Magnesium (Mg)	546
Calcium (Ca)	1375
Barium (Ba)	<1
Phosphorus (P)	675
Zinc (Zn)	877
Molybdenum (Mo)	290
Boron (B)	32

Contaminants	
Water (%)	<0.05
Coolant	No

Physical Tests	
Viscosity (cSt 100C)	10.4
PQ Index	<10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42CE

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--	---

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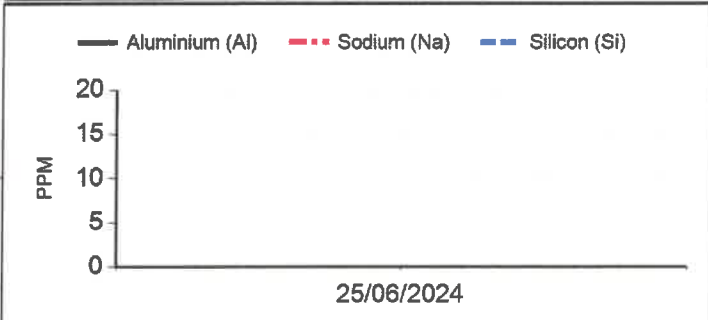
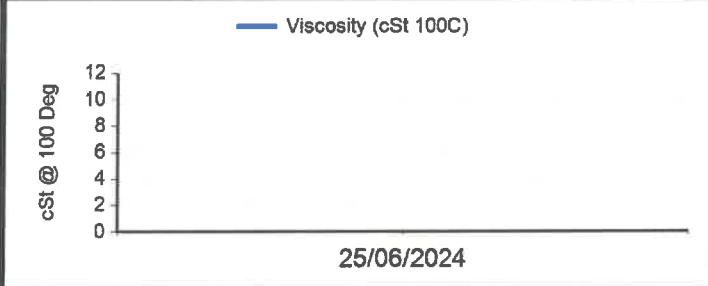
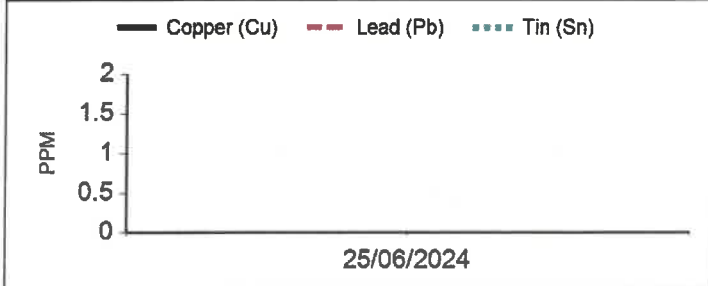
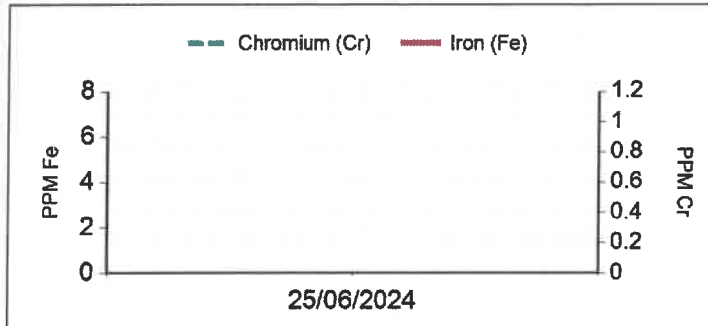
International Locations

Australia Brisbane, Perth, Sydney, Muswellbrook	South America Santiago de Chile, Belo Horizonte, Brazil	New Zealand Wellington	Southeast Asia Kuala Lumpur, Singapore	Europe Prague
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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0AC42CF

Transmission

Unit No. 2404

Unit: Ford
Make: E-450
Model: 1FDEFE4FN6RDD39191
Serial No.

Site

Compartment: Transmission
Name:
Make:
Model:
Serial No.:
Capacity: qt

Customer: PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

Aluminium level elevated. All other wear levels appear satisfactory for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: Date (DATE SAMPLED, DATE RECEIVED, DATE REPORTED) and Value (25-Jun-24, 31-Jul-24, 02-Aug-24)

Table with 2 columns: Lab/Spec (LAB NO., SIF NO., TIME ON UNIT, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED FILTER, OIL CHANGED WO NUMBER) and Value (44023403751, 702897506, Unidentified, Unidentified, Unknown, Not Changed)

Metals (ppm) table listing Iron (Fe), Chromium (Cr), Lead (Pb), Copper (Cu), Tin (Sn), Aluminium (Al), Nickel (Ni), Silver (Ag), Titanium (Ti), Vanadium (V) with values ranging from <1 to 28.

Contaminants (ppm) table listing Silicon (Si), Sodium (Na), Potassium (K) with values 8, 3, <1.

Additives (ppm) table listing Magnesium (Mg), Calcium (Ca), Barium (Ba), Phosphorus (P), Zinc (Zn), Molybdenum (Mo), Boron (B) with values ranging from 1 to 127.

Contaminants table listing Water (%) with value <0.05.

Physical Tests table listing Viscosity (cSt 100C) and Solids (%) with values 5.8 and 0.1.

Additional table listing PQ Index with value 14.



ANALYST: aaron.cotton

LEGEND section with icons for Caution, Severe, Abnormal, Caution, Normal.



UIN 0AC42CF

U.S. Laboratories

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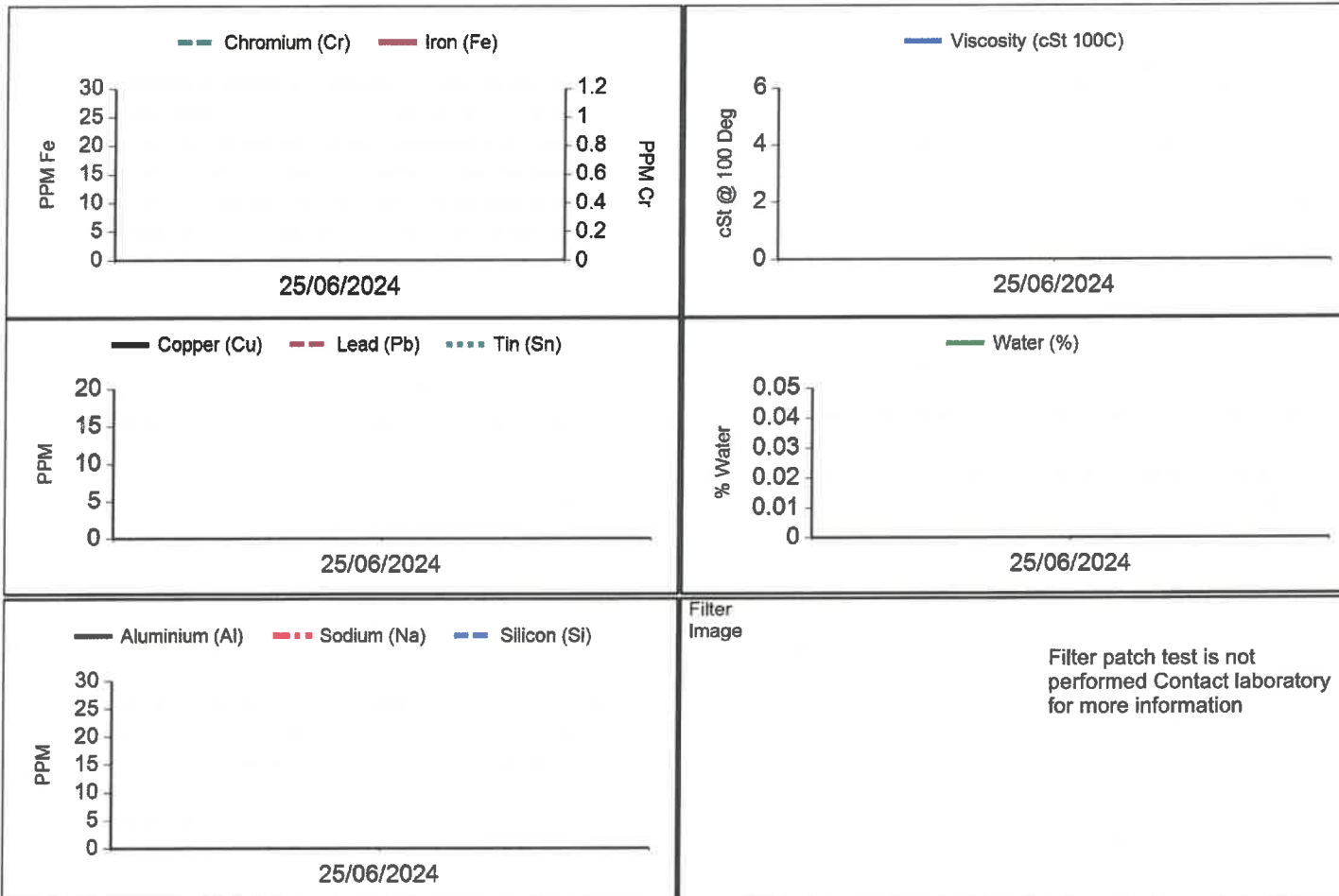
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- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

- Acid Number: ASTM D974/D664 (*M)
- Base Number: ASTM D4739 (*M)
- Base Number (Perchloric): ASTM D2896B, back (*M)
- Fuel Dilution by GC: ASTM D7593
- Fuel Dilution Visc/Setaflash In House
- Fuel Soot ATR/IR: ASTM D7686 (*M)
- Soot by FTIR: ASTM D7844
- Glycol: In House
- Metals by ICP AES: ASTM D5185 (*M)
- Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
- PQ Index: ASTM D8120 (*M)
- Particle Count: ASTM D7647 (*M) / ISO 4406
- Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
- Water KF: D6304 / E203 (*M)
- Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08FF9B5

Transmission

Unit No. 2102

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRF7NCNE1311

Site

Compartment:
Name Transmission

Make
Model

Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	18-Apr-24	06-Dec-23	16-Aug-23	03-May-23	31-Jan-23	10-Oct-22
DATE RECEIVED	24-Apr-24	17-Jan-24	29-Aug-23	23-May-23	14-Feb-23	31-Oct-22
DATE REPORTED	25-Apr-24	19-Jan-24	30-Aug-23	26-May-23	16-Feb-23	02-Nov-22

LAB NO.	44023318075	44023229558	44023107508	44023023689	44022938284	4402285671
SIF NO.	702897569	702897527	701689908	701689967	700592839	700592849
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD	Syn ATF HD
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt		8.0			
FILTER	mi					
OIL CHANGED	Changed	Not Changed	Changed	Not Changed	Not Changed	Not Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	33	30	28	24	27	24
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	1	<1	<1	<1	<1	<1
Copper (Cu)	5	5	7	6	8	9
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	3	3	3	3	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	3	5	3	3	4	4
Sodium (Na)	2	<1	1	1	<1	3
Potassium (K)	1	<1	<1	<1	<1	1

Additives (ppm)						
Magnesium (Mg)	25	32	40	39	39	36
Calcium (Ca)	106	113	147	136	135	109
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	223	222	240	222	257	240
Zinc (Zn)	37	39	50	48	51	47
Molybdenum (Mo)	<1	<1	<1	1	1	2
Boron (B)	84	85	76	78	89	82

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.6	6.7	6.7	6.8	6.7	6.8
Solids (%)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	16	12	11	15	<10	10



ANALYST: Stan.Leitz

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 08FF9B5

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Portland, Oregon - 401

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Portland, OR 97210
800.770.4128

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Wellington

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Kuala Lumpur, Singapore

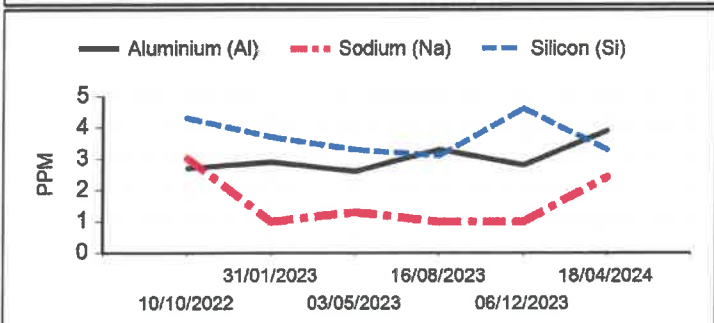
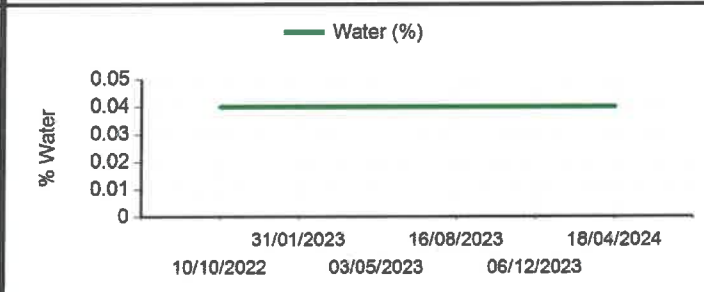
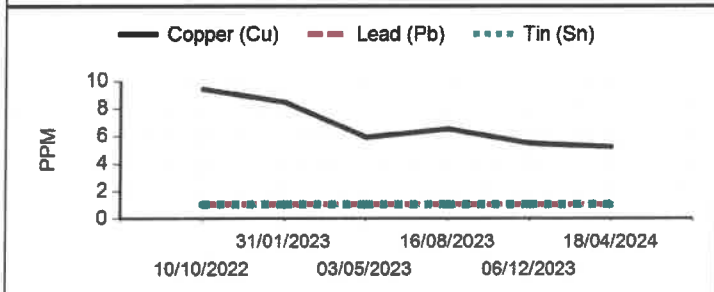
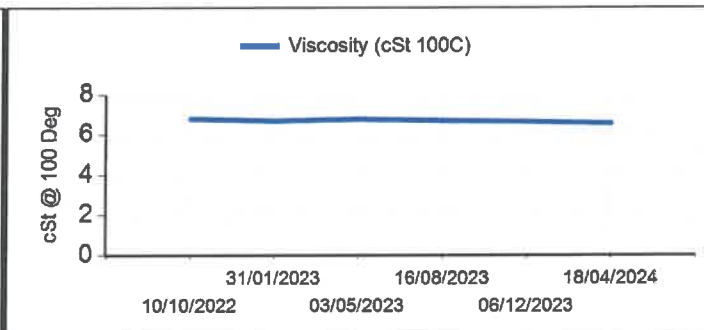
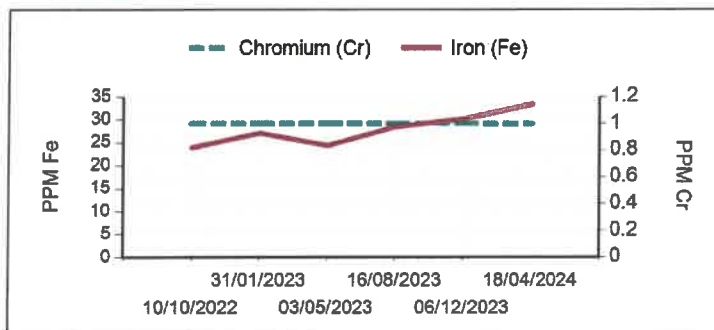
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05CEDA4

Diesel Engine

Unit No. 1602

Unit:
Make Freightliner
Model .
Serial No. 4UZADRD00HCJC8217

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 17.5 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity low for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: roldan.beldad

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23	22-Sep-22	18-May-22
DATE RECEIVED	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23	14-Oct-22	15-Jun-22
DATE REPORTED	26-Apr-24	11-Dec-23	19-Jul-23	13-Mar-23	17-Oct-22	17-Jun-22

LAB NO.	44023318108	44023195906	44023069478	44022956868	44022843564	44022754283
SIF NO.	702897574	701689956	701689987	700592797	700592884	39776180
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	22	26	12	13	16	12
Chromium (Cr)	<1	1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	5	6	3	4	2	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	6	5	5	8	8	5
Sodium (Na)	2	3	<1	<1	2	5
Potassium (K)	4	5	3	2	3	2

Additives (ppm)						
Magnesium (Mg)	704	759	666	669	700	678
Calcium (Ca)	1239	1247	1149	1198	1268	1308
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	670	729	677	654	658	704
Zinc (Zn)	788	817	719	741	746	842
Molybdenum (Mo)	9	4	3	3	7	34
Boron (B)	39	29	58	60	57	108

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	11.5	12.6	12.1	10.9	12.4	13.5
Fuel (%)	1.6	2.40	4.3	5.6	2.50	<1
PQ Index	<10	12	<10	<10	<10	13
Soot (%) Infrared D7844	0.4	0.6	0.2	0.3	0.5	0.4





UIN 05CEDA4

U.S. Laboratories

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Phoenix, Arizona - 440
 3319 West Earll Drive
 Phoenix, AZ 85017
 800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
 Portland, OR 97210
 800.770.4128

Canadian Laboratories

Burlington, Ontario - 450
 5036 South Service Rd.
 Burlington, ON L7L5Y7
 905 332 9559

Edmonton, Alberta - 402
 9450 17 Ave NW
 Edmonton, AB T6N 1M9
 +1 (780) 483-1036

Sales & Marketing

Houston, Texas

10450 Stancliff Road, Suite 210
 Houston, TX 77099
 877.835.8437

International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

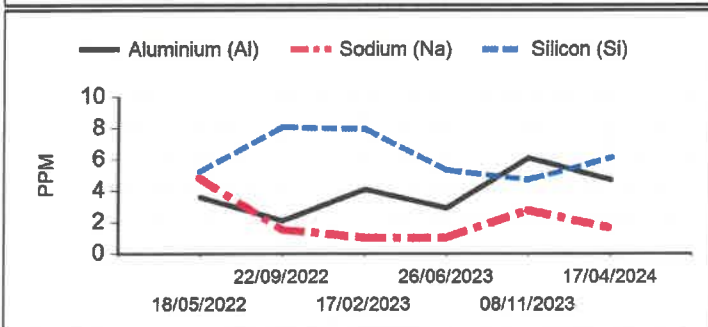
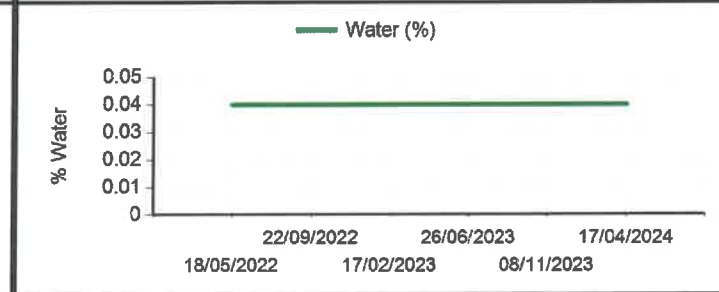
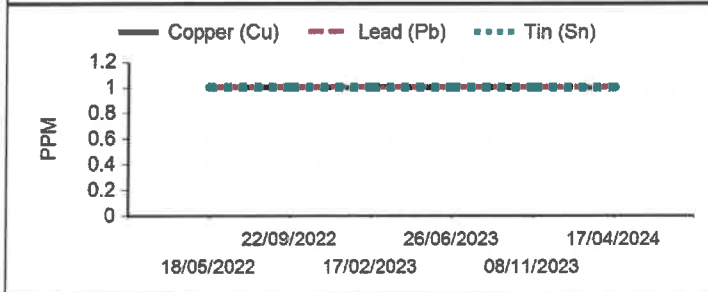
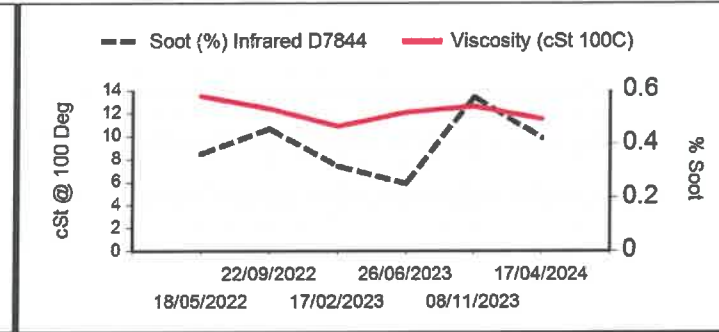
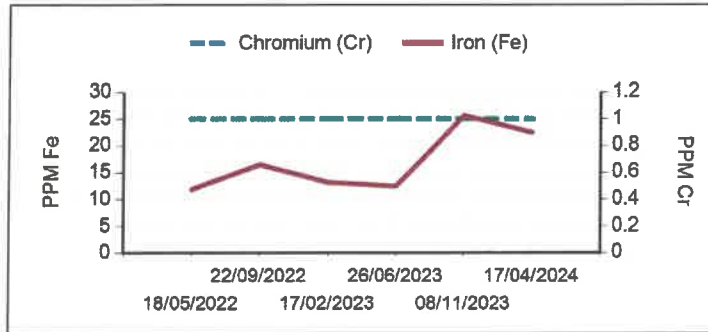
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
 Base Number: ASTM D4739 (*M)
 Base Number (Perchloric): ASTM D2896B, back (*M)
 Fuel Dilution by GC: ASTM D7593
 Fuel Dilution Visc/Setaflash In House
 Fuel Soot ATR/IR: ASTM D7686 (*M)
 Soot by FTIR: ASTM D7844
 Glycol: In House
 Metals by ICP AES: ASTM D5185 (*M)
 Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414
 D7415
 PQ Index: ASTM D8120 (*M)
 Particle Count: ASTM D7647 (*M) / ISO 4406
 Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
 Water KF: D6304 / E203 (*M)
 Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 05CEDA5

Transmission

Unit No. 1602

Unit:
Make Freightliner
Model
Serial No. 4UZADRD00HCJC8217

Site

Compartment:
Name Transmission
Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	17-Apr-24	08-Nov-23	26-Jun-23	17-Feb-23	22-Sep-22	18-May-22
DATE RECEIVED	24-Apr-24	08-Dec-23	14-Jul-23	08-Mar-23	14-Oct-22	15-Jun-22
DATE REPORTED	25-Apr-24	11-Dec-23	18-Jul-23	13-Mar-23	17-Oct-22	17-Jun-22

LAB NO.	44023318109	44023195907	44023069479	44022956869	44022843565	44022754284
SIF NO.	702897573	701689957	701689986	700592800	700592883	39776175
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt			8.0	8.0	8.0
FILTER	mi					
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	23	23	25	36	45	41
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	3	3	4	3	6	7
Copper (Cu)	14	15	18	25	28	36
Tin (Sn)	<1	<1	<1	<1	<1	1
Aluminium (Al)	3	3	3	4	3	5
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	3	2	5	7	6	5
Sodium (Na)	<1	<1	<1	<1	<1	3
Potassium (K)	1	2	<1	<1	<1	<1

Additives (ppm)						
Magnesium (Mg)	24	28	34	33	19	5
Calcium (Ca)	93	109	137	125	86	91
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	217	237	226	238	213	224
Zinc (Zn)	36	42	48	56	47	46
Molybdenum (Mo)	<1	<1	1	1	1	<1
Boron (B)	84	72	85	85	96	79

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.6	6.7	6.6	6.5	6.4	6.4
Solids (%)	<0.1	0.1	<0.1	0.1	<0.1	<0.1

Additional						
PQ Index	12	13	13	<10	<10	15





UIN 05CEDA5

U.S. Laboratories

- Atlanta, Georgia - 420**
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669
- Valley View, Ohio - 410**
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400
- Kansas City, Kansas - 430**
935 Sunshine Road
Kansas City, KS 66115
800.332.8055
- Phoenix, Arizona - 440**
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877.835.8437

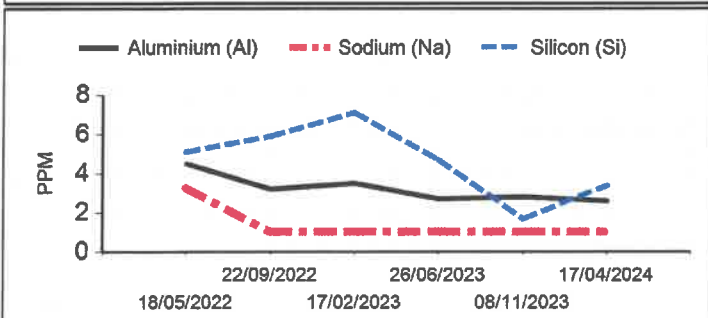
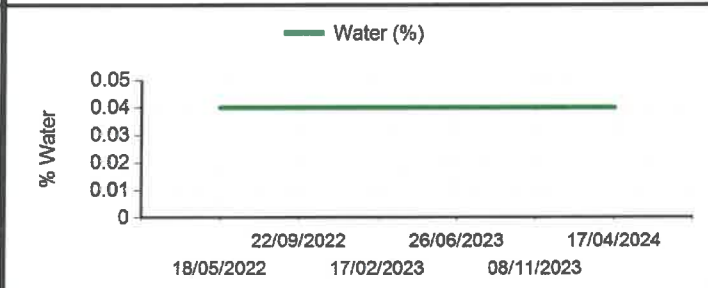
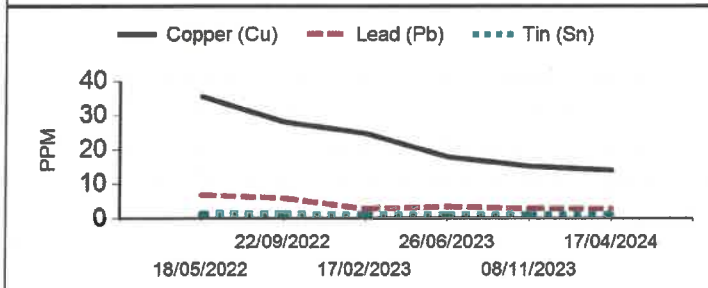
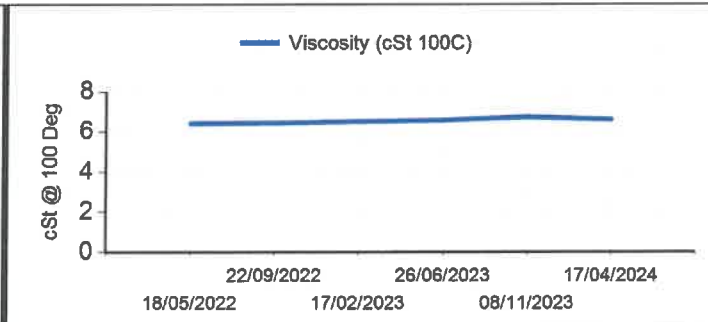
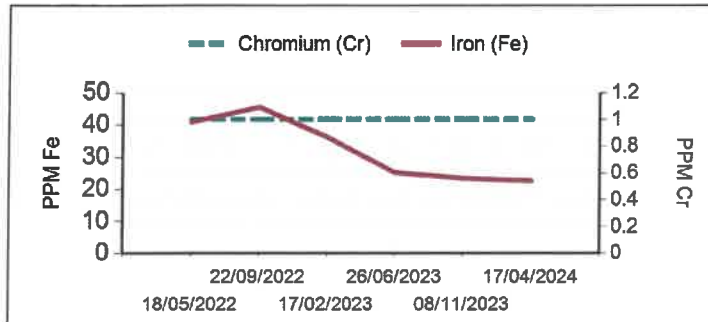
International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 037EDBC

Transmission

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Transmission
Make
Model
Serial No.

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next recommended service interval to further monitor.

DATE SAMPLED	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19	08-Oct-18
DATE RECEIVED	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19	16-Nov-18
DATE REPORTED	25-Apr-24	05-Apr-23	28-Feb-20	01-Aug-19	21-Feb-19	16-Nov-18

LAB NO.	44023318076	44022978409	44022189833	44022068760	44021980491	44021927123
SIF NO.	702897572	701689926	34144404	35084630	35084600	34144436
TIME ON UNIT	mi					
TIME ON OIL	mi		26000	20000	20000	20
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	12	27	40	36	20	25
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	4	19	35	25	15	18
Tin (Sn)	1	3	5	2	2	2
Aluminium (Al)	4	13	23	18	11	14
Nickel (Ni)	<1	<1	<1	1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	10	4	4	3	2	3
Sodium (Na)	6	<1	2	5	1	2
Potassium (K)	4	<1	2	<1	1	<1

Additives (ppm)						
Magnesium (Mg)	<1	3	2	2	2	2
Calcium (Ca)	108	130	122	120	99	104
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	187	191	190	177	162	177
Zinc (Zn)	3	6	5	5	4	5
Molybdenum (Mo)	<1	2	<1	<1	<1	<1
Boron (B)	89	71	57	56	52	49

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.9	7.0	5.7	6.3	6.2
Solids (%)	0.1	<0.1	<0.1	<0.1	<0.1	0.1

Additional						
PQ Index	18	11	10	131	124	12

ANALYST: Stan.Leitz

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 037EDBC

U.S. Laboratories

Atlanta, Georgia - 420
 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

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Southeast Asia

Kuala Lumpur, Singapore

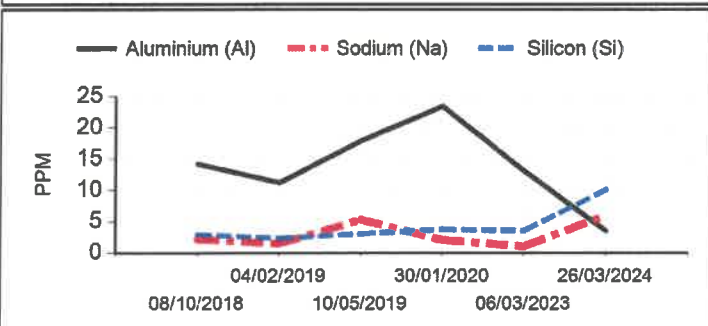
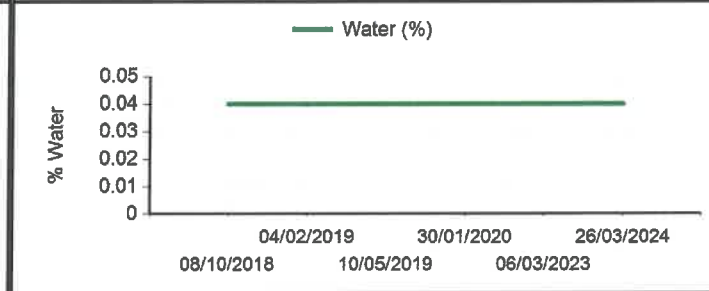
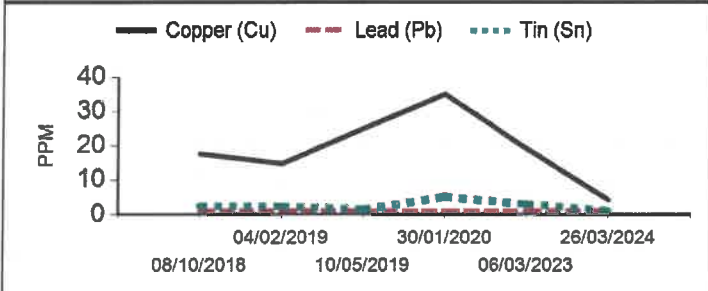
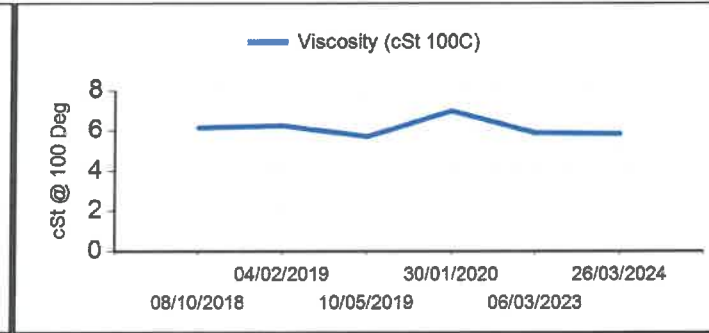
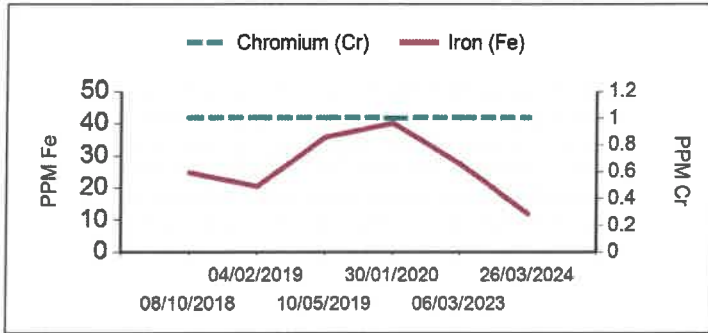
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 03521F8

Gasoline Engine

Unit No. 1303

Unit: Ford
 Make: E-450
 Model:
 Serial No.:

Site

Compartment:

Name: Gasoline Engine
 Make:
 Model:
 Serial No.:
 Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity high for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19	08-Oct-18
DATE RECEIVED	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19	29-Nov-18
DATE REPORTED	25-Apr-24	05-Apr-23	28-Feb-20	31-Jul-19	21-Feb-19	29-Nov-18
LAB NO.	44023318110	44022978408	44022189832	44022068748	44021980367	44021932737
SIF NO.	702897571	701689927	34144406	35084634	35084595	34144450
TIME ON UNIT	mi					
TIME ON OIL	mi		6000	6000	6000	6000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	24	9	11	9	12	9
Chromium (Cr)	1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	1	<1	<1	<1
Aluminium (Al)	6	2	4	4	3	2
Nickel (Ni)	1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	14	13	14	12	13	13
Sodium (Na)	4	<1	4	4	6	2
Potassium (K)	2	<1	2	2	1	1
Additives (ppm)						
Magnesium (Mg)	486	545	542	503	480	461
Calcium (Ca)	1405	1463	1255	1191	1220	1225
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	678	731	771	647	624	632
Zinc (Zn)	856	861	881	773	791	789
Molybdenum (Mo)	290	312	192	163	169	166
Boron (B)	19	60	47	21	25	20
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	9.8	8.2	8.4	9.4	9.3	8.6
PQ Index	12	<10	<10	<10	<10	10

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UIN 03521F8

U.S. Laboratories

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 5300 OakBrook Parkway
 Building 200 Suite 245
 Norcross, GA 30093
 800.394.3669

Valley View, Ohio - 410
 6180 Halle Dr. Suite D
 Valley View, OH 44125
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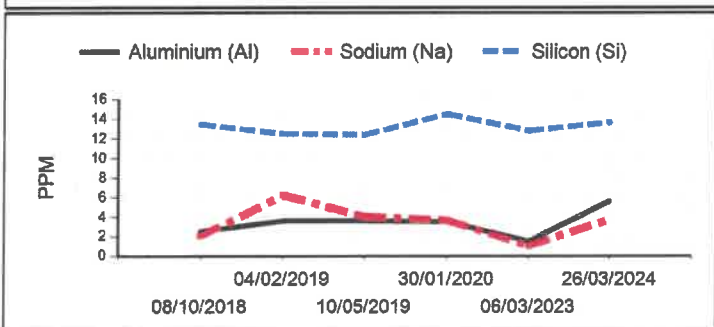
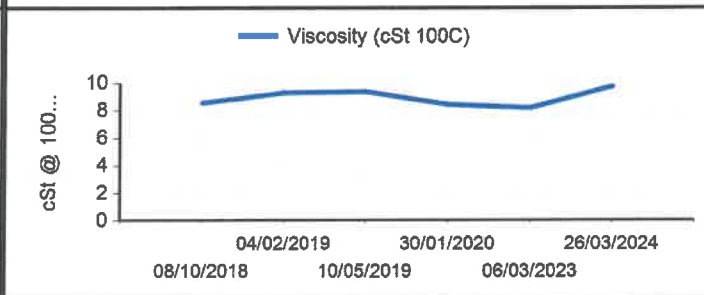
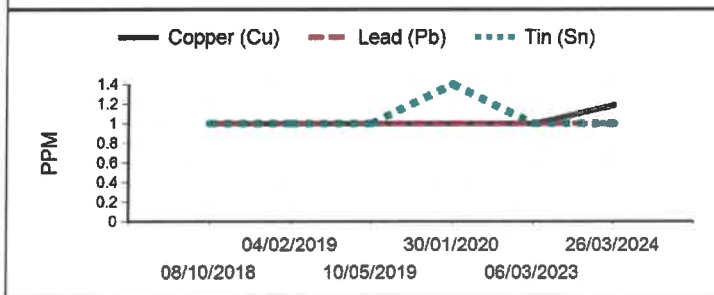
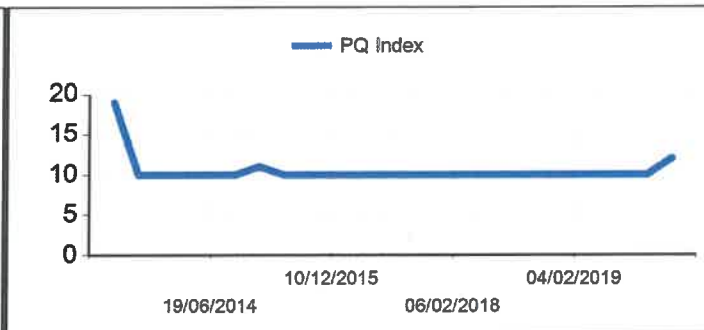
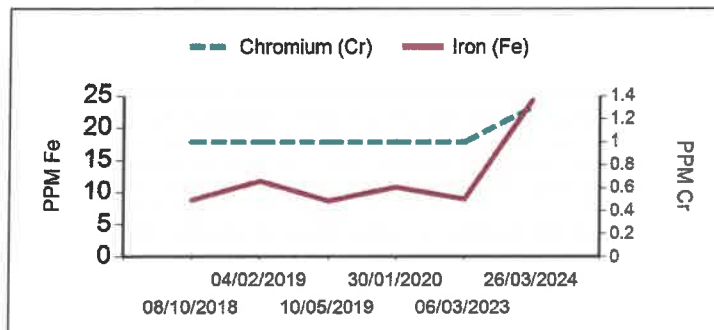
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046DA

Transmission

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, Advise carry out transmission performance pressure checks. Resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23	13-Oct-22	06-Jun-22
DATE RECEIVED	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23	31-Oct-22	19-Jul-22
DATE REPORTED	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23	02-Nov-22	21-Jul-22

LAB NO.	44023318107	44023253081	44023069487	44022956867	44022856763	44022779395
SIF NO.	702897575	702897512	701689980	700592802	700592854	39776251
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Not Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	59	75	50	45	41	45
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	7	9	8	7	7	10
Tin (Sn)	2	2	2	1	1	1
Aluminium (Al)	35	44	30	21	17	20
Nickel (Ni)	2	3	2	2	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	7	9	8	10	6	5
Sodium (Na)	2	3	<1	<1	2	3
Potassium (K)	2	<1	<1	<1	1	1

Additives (ppm)						
Magnesium (Mg)	5	7	3	7	4	6
Calcium (Ca)	132	145	143	148	132	133
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	183	200	183	189	182	173
Zinc (Zn)	10	15	6	12	7	14
Molybdenum (Mo)	3	4	2	4	2	3
Boron (B)	65	63	70	65	61	55

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.0	5.9	5.9	5.7	6.1	5.8
Solids (%)	0.1	<0.1	0.1	0.1	<0.1	<0.1

Additional						
PQ Index	20	16	16	10	14	17





UIN 08046DA

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Kansas City, Kansas - 430
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 Kansas City, KS 66115
 800.332.8055

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 800.445.7930

Portland, Oregon - 401

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Southeast Asia

Kuala Lumpur, Singapore

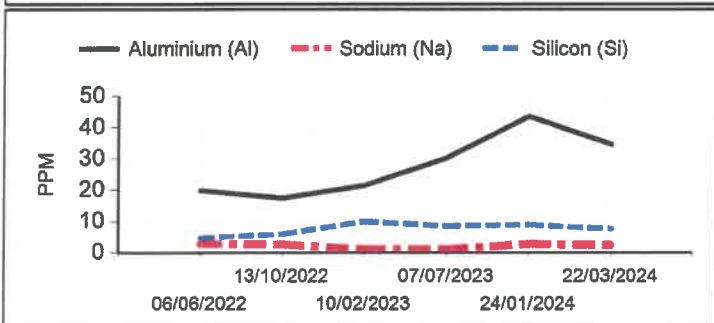
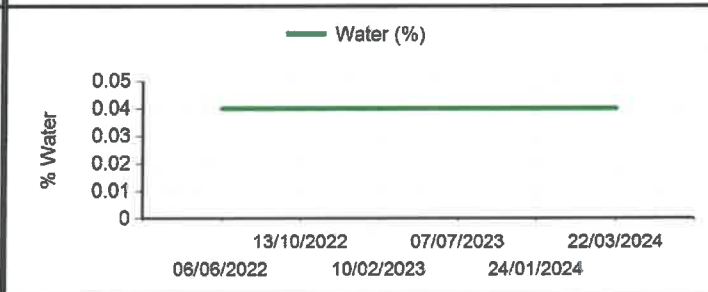
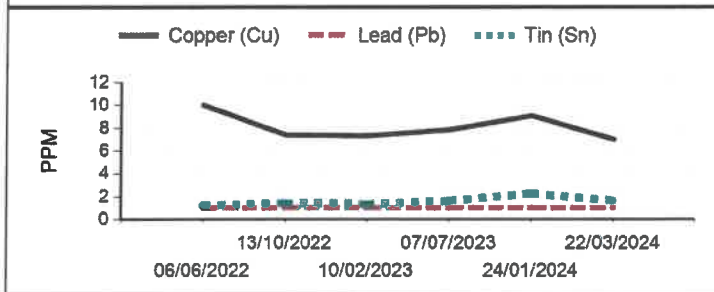
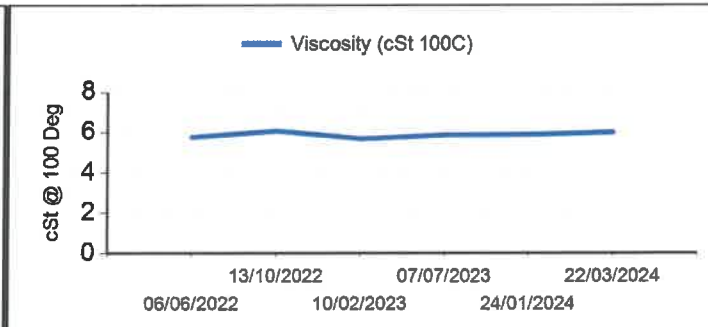
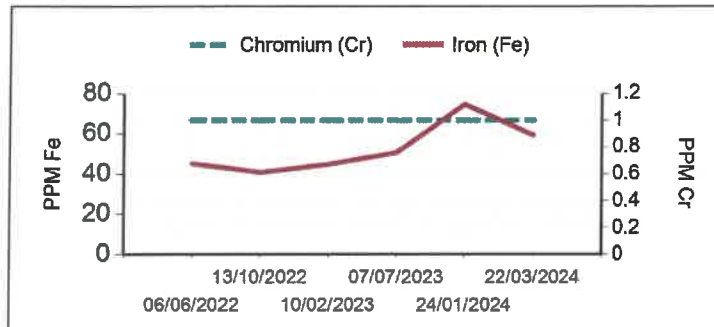
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 08046CE

Gasoline Engine

Unit No. 1905

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM7KKB40836

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

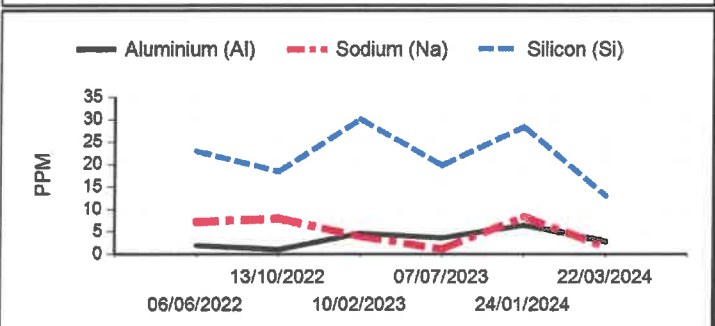
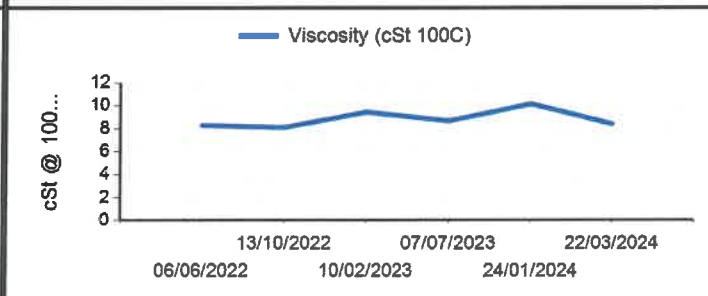
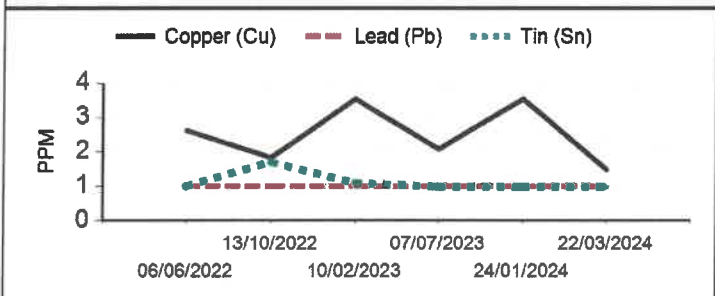
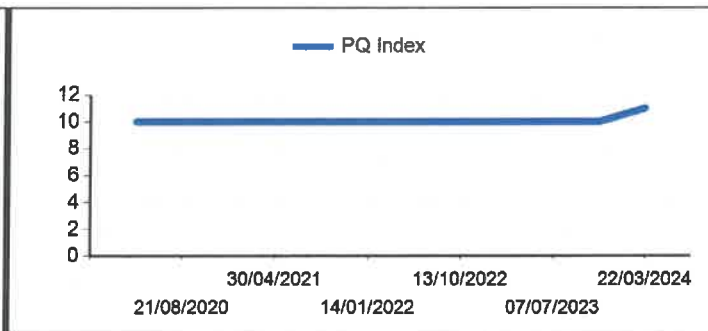
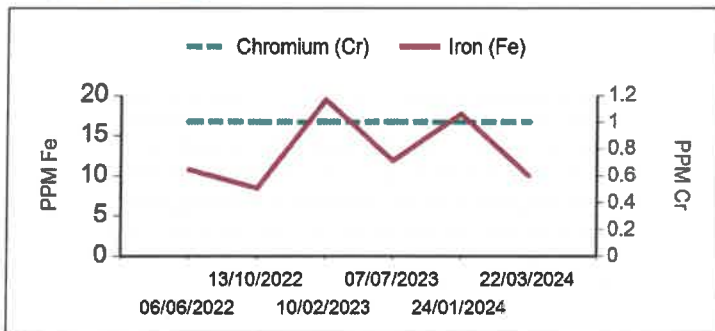
LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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DATE SAMPLED	22-Mar-24	24-Jan-24	07-Jul-23	10-Feb-23	13-Oct-22	06-Jun-22
DATE RECEIVED	24-Apr-24	13-Feb-24	14-Jul-23	08-Mar-23	31-Oct-22	15-Jun-22
DATE REPORTED	25-Apr-24	14-Feb-24	18-Jul-23	13-Mar-23	02-Nov-22	16-Jun-22
LAB NO.	44023318106	44023253080	44023069486	44022956866	44022856762	44022754394
SIF NO.	702897576	702897511	701689981	700592805	700592853	39776178
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	10	18	12	19	8	11
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	1	4	2	4	2	3
Tin (Sn)	1	<1	<1	1	2	<1
Aluminium (Al)	3	6	4	5	<1	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	13	28	20	30	18	23
Sodium (Na)	2	8	<1	4	8	7
Potassium (K)	2	<1	<1	<1	1	<1
Additives (ppm)						
Magnesium (Mg)	507	578	519	528	536	510
Calcium (Ca)	1413	1611	1423	1443	1431	1411
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	691	815	712	726	729	727
Zinc (Zn)	860	1038	830	867	882	923
Molybdenum (Mo)	298	329	305	306	295	287
Boron (B)	22	18	28	21	41	26
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.4	10.2	8.7	9.5	8.1	8.3
PQ Index	11	<10	<10	<10	<10	<10



UIN 08046CE



Filter Image

Filter patch test is not performed Contact laboratory for more information

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- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 0916D7B

Transmission

Unit No. 2101

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23	04-Nov-22	16-Aug-22
DATE RECEIVED	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23	29-Dec-22	15-Sep-22
DATE REPORTED	25-Apr-24	11-Dec-23	27-Jun-23	13-Mar-23	03-Jan-23	19-Sep-22

LAB NO.	44023318105	44023195911	43021792842	44022956865	44022901829	44022821202
SIF NO.	702897577	701689958	701689895	700592803	700592820	700592862
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED qt	8.0			8.0	8.0	8.0
FILTER						
OIL CHANGED	Changed	Not Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	31	34	38	42	30	25
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	3	4	3	5	7
Copper (Cu)	6	8	9	13	11	12
Tin (Sn)	<1	<1	<1	<1	<1	4
Aluminium (Al)	5	6	6	7	5	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	2	5	8	4	5
Sodium (Na)	3	2	3	<1	<1	5
Potassium (K)	1	2	<1	1	<1	2

Additives (ppm)						
Magnesium (Mg)	27	30	52	44	34	27
Calcium (Ca)	91	96	154	109	92	71
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	224	236	258	257	247	210
Zinc (Zn)	37	40	73	58	47	38
Molybdenum (Mo)	1	1	2	2	2	2
Boron (B)	86	73	91	92	88	82

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.9	6.6	6.8	6.7	7.0	6.8
Solids (%)	0.1	0.1	<0.1	0.1	<0.1	<0.1

Additional						
PQ Index	16	13	11	<10	16	<10



ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

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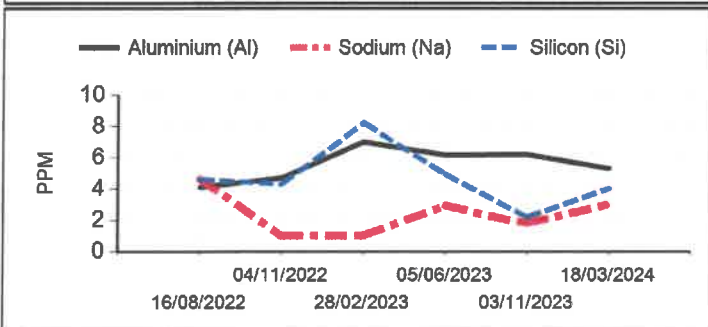
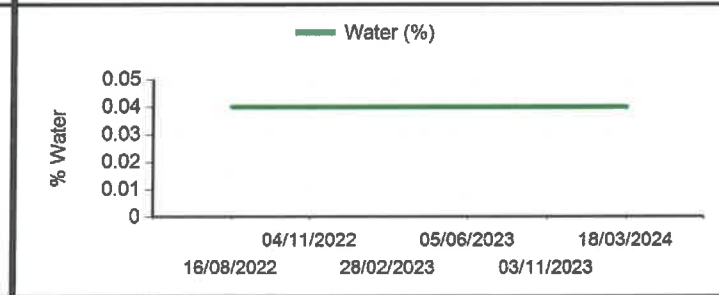
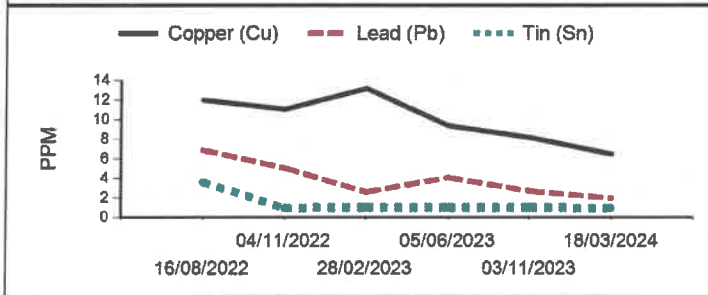
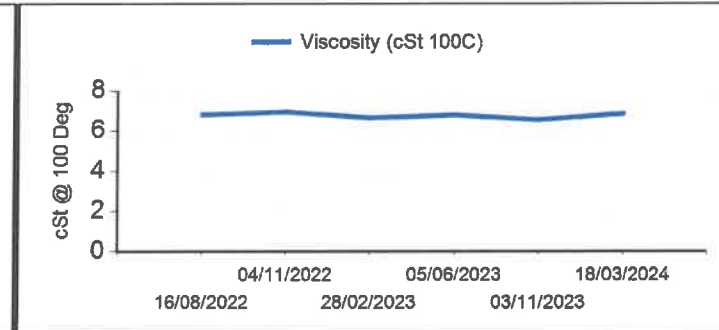
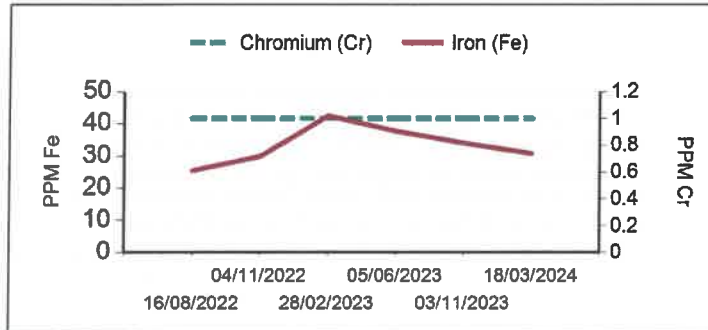
Europe

Prague

TEST METHODS:

Acid Number: ASTM D974/D664 (*M)
Base Number: ASTM D4739 (*M)
Base Number (Perchloric): ASTM D2896B, back (*M)
Fuel Dilution by GC: ASTM D7593
Fuel Dilution Visc/Setaflash In House
Fuel Soot ATR/IR: ASTM D7686 (*M)
Soot by FTIR: ASTM D7844
Glycol: In House
Metals by ICP AES: ASTM D5185 (*M)
Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
PQ Index: ASTM D8120 (*M)
Particle Count: ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
Water KF: D6304 / E203 (*M)
Water Crackle: In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 0916D7A

Diesel Engine

Unit No. 2101

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD5NCNE1310

Site

Compartment:

Name Diesel Engine

Make

Model

Serial No.

Capacity: 16.0 qt

Customer:

PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: roldan.beldad

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	18-Mar-24	03-Nov-23	05-Jun-23	28-Feb-23	04-Nov-22	16-Aug-22
DATE RECEIVED	24-Apr-24	08-Dec-23	23-Jun-23	08-Mar-23	29-Dec-22	15-Sep-22
DATE REPORTED	25-Apr-24	11-Dec-23	24-Jun-23	10-Mar-23	30-Dec-22	16-Sep-22

LAB NO.	44023318104	44023195910	43021792841	44022956864	44022901830	44022821201
SIF NO.	702897578	701689959	701689894	700592806	700592819	700592866
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	9	9	11	18	11	10
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	5
Aluminium (Al)	6	3	4	12	5	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	2	5	8	6	6
Sodium (Na)	1	2	4	<1	<1	6
Potassium (K)	14	6	2	23	8	6

Additives (ppm)						
Magnesium (Mg)	714	776	798	704	722	633
Calcium (Ca)	1248	1268	1418	1269	1300	1164
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	675	754	770	658	719	629
Zinc (Zn)	807	841	908	750	802	735
Molybdenum (Mo)	10	3	4	3	6	11
Boron (B)	74	65	74	51	65	73

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.3	13.3	12.6	12.2	12.6	13.0
Fuel (%)	3.60	<1	1.70	3.20	1.70	<1
PQ Index	11	<10	<10	<10	<10	<10
Soot (%) Infrared D7844	0.2	0.2	0.2	0.3	0.2	0.2





UIN 0916D7A

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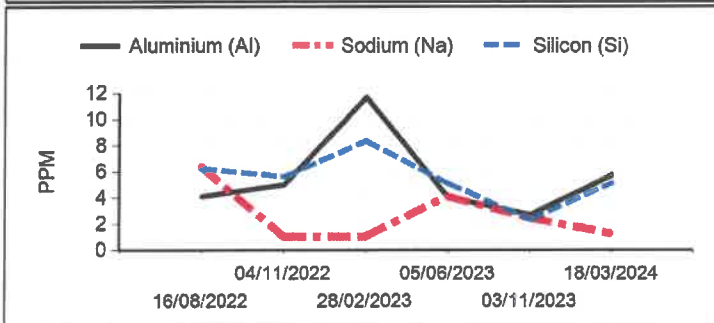
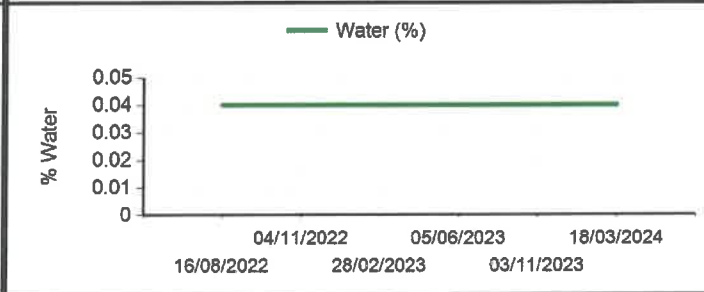
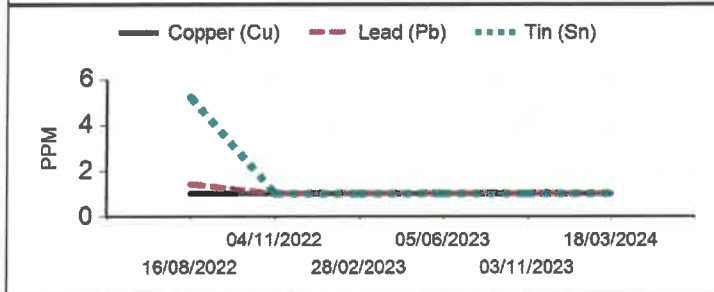
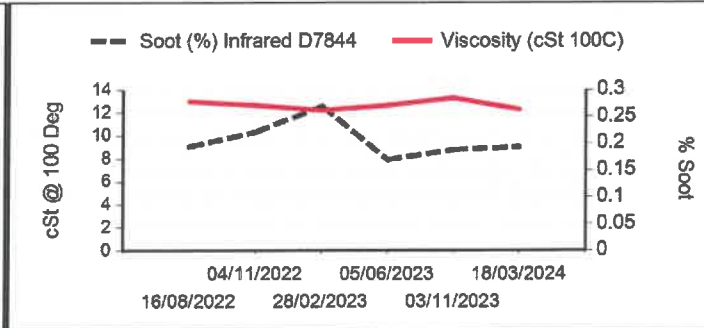
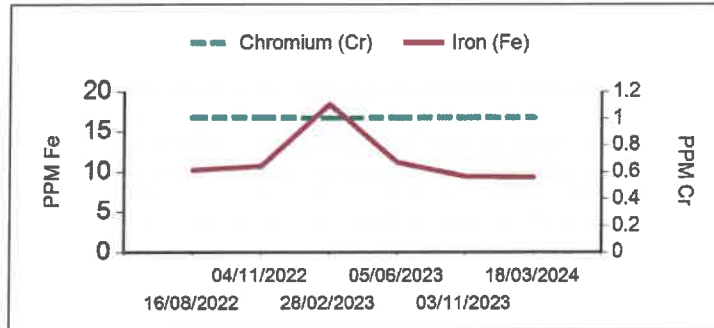
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 092B86F

Gasoline Engine

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFDONCNE1312

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity low for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: Stan.Leitz

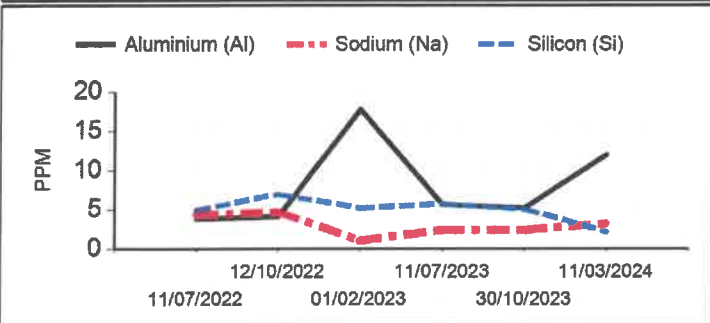
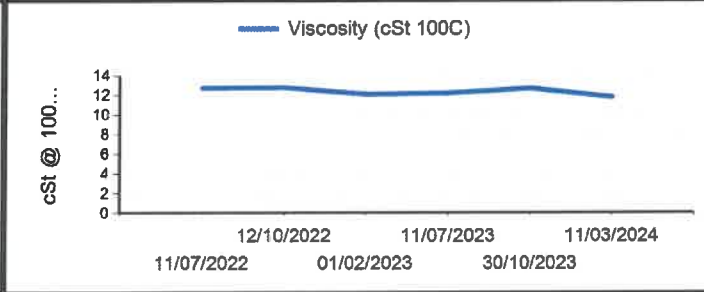
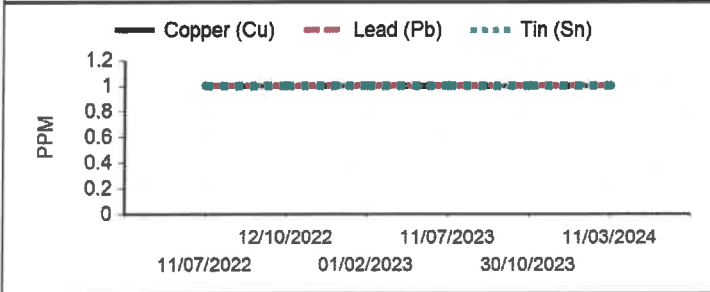
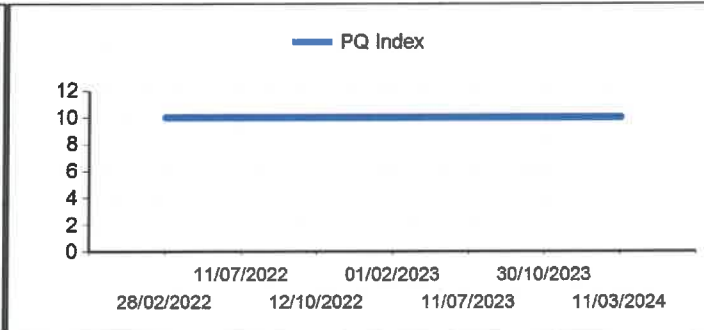
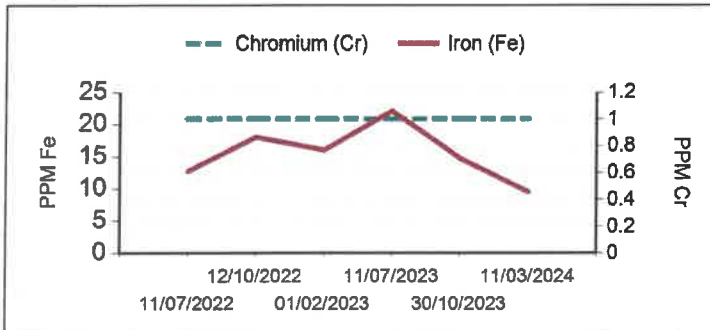
	LEGEND			
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	11-Mar-24	30-Oct-23	11-Jul-23	01-Feb-23	12-Oct-22	11-Jul-22
DATE RECEIVED	25-Mar-24	08-Nov-23	29-Aug-23	14-Feb-23	31-Oct-22	15-Aug-22
DATE REPORTED	26-Mar-24	10-Nov-23	30-Aug-23	16-Feb-23	02-Nov-22	16-Aug-22
LAB NO.	44023289160	44023169869	44023107499	44022938406	44022856768	44022798279
SIF NO.	702897580	701689946	701689900	700592845	700592855	700592836
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt 16.0	16.0	16.0	16.0	16.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	
WO NUMBER						
Metals (ppm)						
Iron (Fe)	9	15	22	16	18	13
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	12	5	6	18	4	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	2	5	6	5	7	5
Sodium (Na)	3	2	2	<1	5	4
Potassium (K)	22	7	9	35	6	5
Additives (ppm)						
Magnesium (Mg)	800	685	803	691	733	685
Calcium (Ca)	1337	1152	1297	1226	1268	1332
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	761	650	736	704	709	683
Zinc (Zn)	876	735	865	799	815	789
Molybdenum (Mo)	11	3	3	3	6	11
Boron (B)	76	49	40	74	55	73
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	11.8	12.7	12.2	12.1	12.8	12.7
PQ Index	<10	<10	<10	<10	<10	<10

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UIN 092B86F



Filter Image

Filter patch test is not performed Contact laboratory for more information

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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 08046DF

Gasoline Engine

Unit No. 1904

Unit:
Make Ford
Model 350
Serial No. 1FDE56PM6KKB48491

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Silicon level (dirt/sealant material) is at a severe level. Water content satisfactory. Viscosity within specified operating range. Action: Check all dirt access points. As oil and filter(s) already changed, resample after corrective action to further monitor.

ANALYST: aaron.cotton

LEGEND

Severe Severe Abnormal Caution Normal

DATE SAMPLED	16-Jul-24	19-Jan-24	07-Sep-23	26-May-23	07-Feb-23	07-Oct-22
DATE RECEIVED	31-Jul-24	13-Feb-24	20-Sep-23	23-Jun-23	14-Feb-23	14-Oct-22
DATE REPORTED	02-Aug-24	14-Feb-24	25-Sep-23	24-Jun-23	16-Feb-23	17-Oct-22

LAB NO.	44023403757	44023253078	44023128161	43021792845	44022938287	44022843557
SIF NO.	702897501	702897514	701689913	701689899	700592843	700592886
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	6.0	6.0			6.0	
FILTER	qt					
OIL CHANGED	mi					
WO NUMBER	Changed	Changed	Changed	Changed	Changed	Changed

Metals (ppm)

Iron (Fe)	22	125	16	25	11	16
Chromium (Cr)	<1	3	<1	<1	<1	<1
Lead (Pb)	1	<1	<1	<1	<1	<1
Copper (Cu)	48	7	2	2	1	2
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	7	71	4	5	1	2
Nickel (Ni)	<1	1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)

Silicon (Si)	146	46	23	17	11	26
Sodium (Na)	20	8	5	9	<1	12
Potassium (K)	18	2	1	<1	<1	2

Additives (ppm)

Magnesium (Mg)	404	600	579	579	502	503
Calcium (Ca)	1303	1627	1706	1706	1346	1412
Barium (Ba)	18	10	<1	<1	<1	<1
Phosphorus (P)	691	821	825	772	724	660
Zinc (Zn)	821	1051	1040	990	889	790
Molybdenum (Mo)	137	335	335	346	196	290
Boron (B)	63	23	29	24	46	23

Contaminants

Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

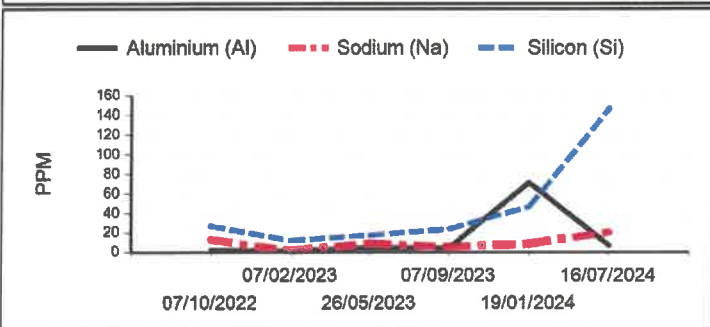
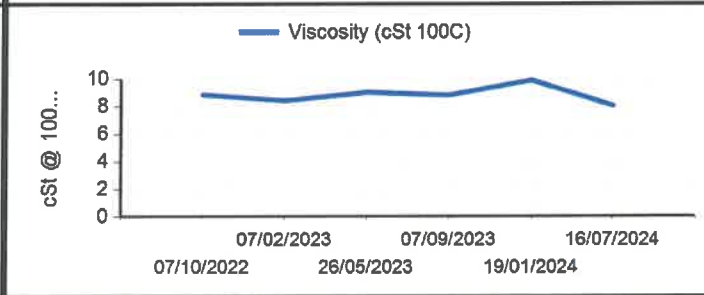
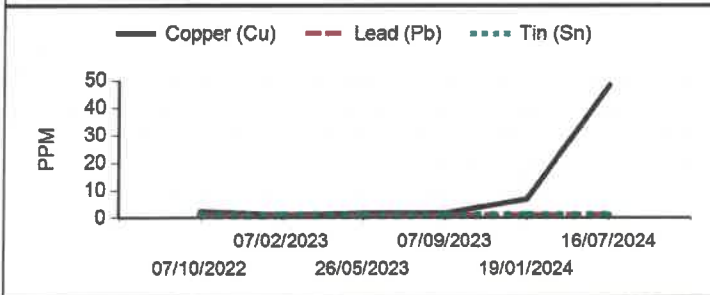
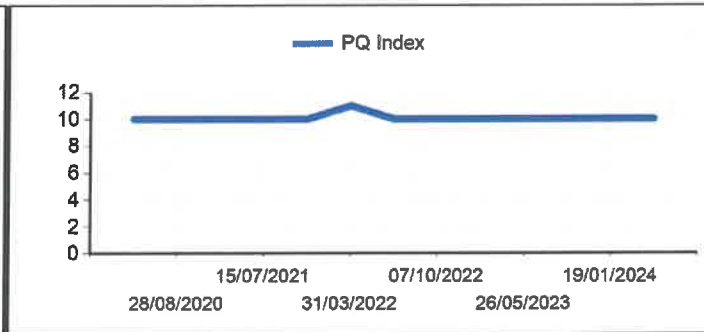
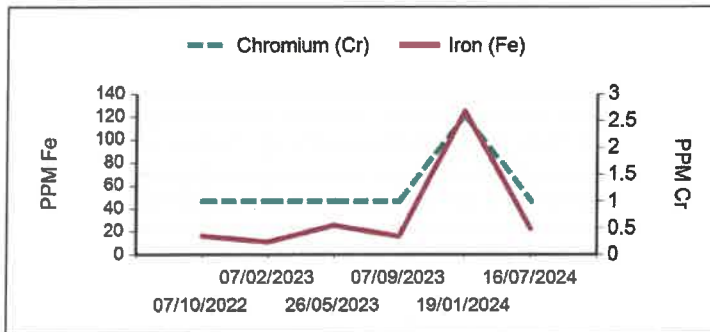
Physical Tests

Viscosity (cSt 100C)	8.0	9.9	8.8	9.0	8.4	8.9
PQ Index	<10	<10	<10	<10	<10	<10





UIN 08046DF



Filter Image

Filter patch test is not performed Contact laboratory for more information

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Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 0AC42C4

Gasoline Engine

Unit No. 2401

Unit:

Make Ford
Model E-450
Serial No. 1FDFE4FNXRDD38867

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	12-Jul-24
DATE RECEIVED	31-Jul-24
DATE REPORTED	02-Aug-24

LAB NO.	44023403748
SIF NO.	702897508
TIME ON UNIT	mi
TIME ON OIL	mi
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	SAE 5W30
OIL ADDED	8.0
FILTER	mi
OIL CHANGED	Changed
WO NUMBER	

Metals (ppm)	
Iron (Fe)	16
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	12
Tin (Sn)	<1
Aluminium (Al)	4
Nickel (Ni)	1
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)	
Silicon (Si)	30
Sodium (Na)	7
Potassium (K)	3

Additives (ppm)	
Magnesium (Mg)	517
Calcium (Ca)	1429
Barium (Ba)	<1
Phosphorus (P)	702
Zinc (Zn)	904
Molybdenum (Mo)	259
Boron (B)	36

Contaminants	
Water (%)	<0.05
Coolant	No

Physical Tests	
Viscosity (cSt 100C)	10.3
PQ Index	<10



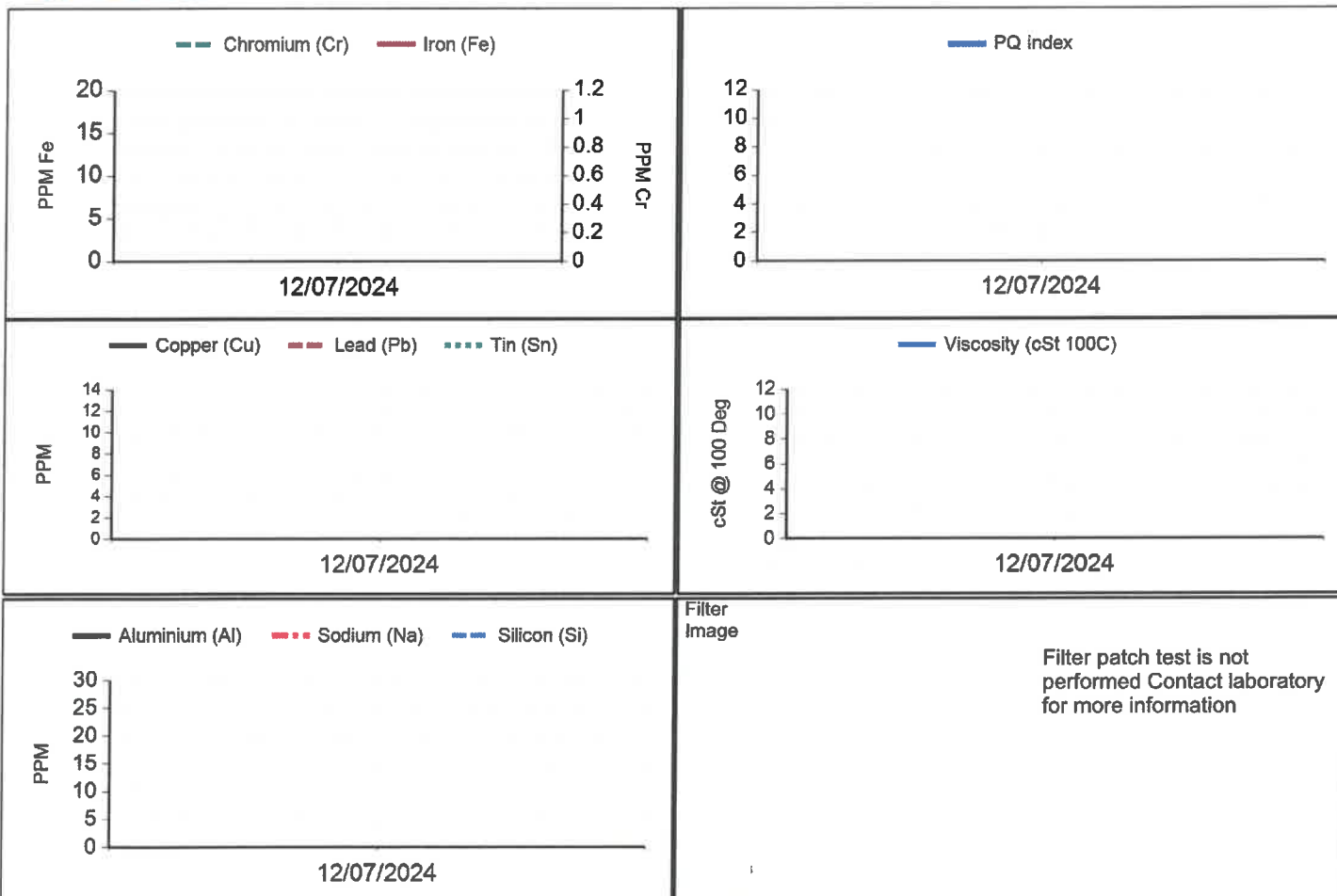
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42C4



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Kuala Lumpur, Singapore
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Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method

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UIN 0AC42C5

Transmission

Unit No. 2401

Unit: Ford
Make: E-450
Model: 1FDFE4FNXRDD38867
Serial No.

Site

Compartment:

Name: Transmission
Make
Model
Serial No.
Capacity:

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Resample at next recommended interval to monitor and establish wear trend.

Table with 2 columns: Field (DATE SAMPLED, DATE RECEIVED, DATE REPORTED) and Value (12-Jul-24, 31-Jul-24, 02-Aug-24)

Table with 2 columns: Field (LAB NO., SIF NO., TIME ON UNIT, OIL BRAND, OIL TYPE, OIL GRADE, OIL ADDED, FILTER, OIL CHANGED, WO NUMBER) and Value (44023403754, 702897507, Unidentified, Unidentified, Unknown, Not Changed)

Table with 2 columns: Metals (ppm) and Value (Iron (Fe) 34, Chromium (Cr) <1, Lead (Pb) <1, Copper (Cu) 36, Tin (Sn) <1, Aluminium (Al) 15, Nickel (Ni) 3, Silver (Ag) <1, Titanium (Ti) <1, Vanadium (V) <1)

Table with 2 columns: Contaminants (ppm) and Value (Silicon (Si) 6, Sodium (Na) 5, Potassium (K) 1)

Table with 2 columns: Additives (ppm) and Value (Magnesium (Mg) 1, Calcium (Ca) 122, Barium (Ba) 1, Phosphorus (P) 185, Zinc (Zn) 4, Molybdenum (Mo) 13, Boron (B) 71)

Table with 2 columns: Contaminants and Value (Water (%) <0.05)

Table with 2 columns: Physical Tests and Value (Viscosity (cSt 100C) 5.7, Solids (%) 0.1)

Table with 2 columns: Additional and Value (PQ Index 13)



ANALYST: Sam Smith Phoenix

LEGEND section with icons for Normal (green checkmark), Severe (red stop), Abnormal (blue wrench), Caution (yellow triangle), and Normal (green checkmark)

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UIN 0AC42C5

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Kuala Lumpur, Singapore

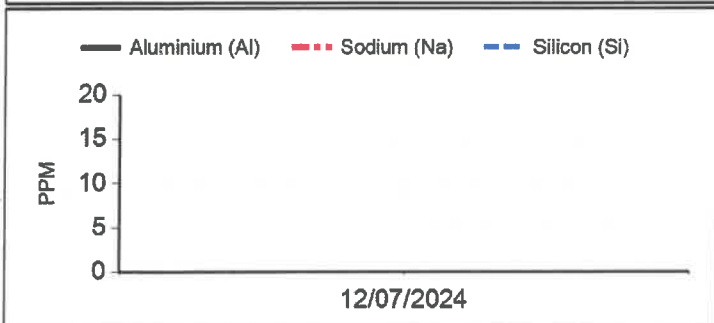
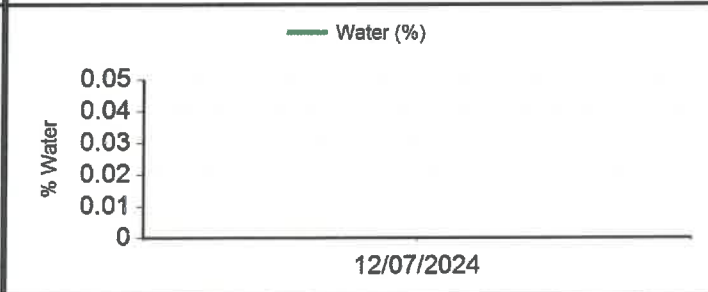
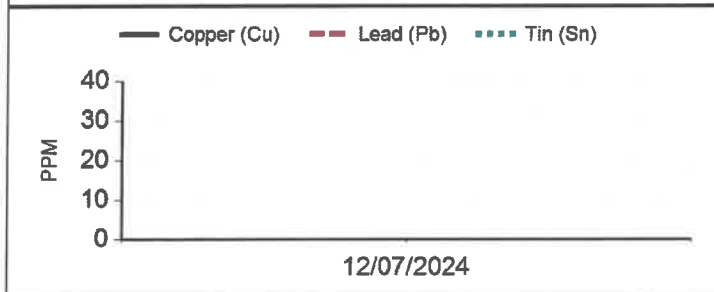
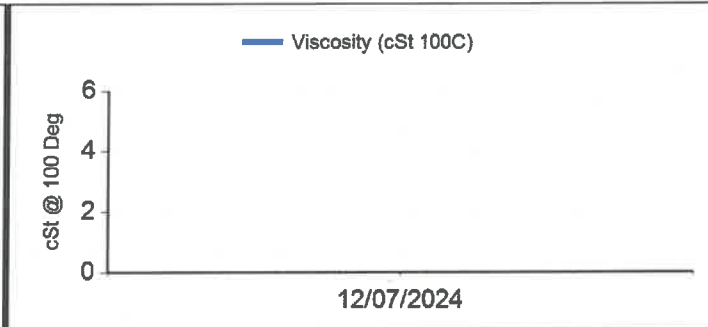
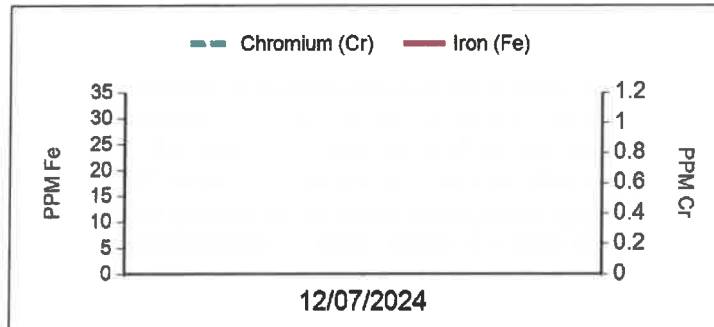
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 037EDBC

Transmission

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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DATE SAMPLED	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19
DATE RECEIVED	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19
DATE REPORTED	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	01-Aug-19	21-Feb-19
LAB NO.	44023403755	44023318076	44022978409	44022189833	44022068760	44021980491
SIF NO.	702897500	702897572	701689926	34144404	35084630	35084600
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	26000	20000	20000
OIL TYPE	ATF	ATF	ATF	Unidentified	Unidentified	Unidentified
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt			6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Not Applicable	Not Changed	Changed	Changed	Changed	Changed
WO NUMBER	Changed	Not Changed	Changed	Changed	Changed	Changed
Metals (ppm)						
Iron (Fe)	23	12	27	40	36	20
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	17	4	19	35	25	15
Tin (Sn)	1	1	3	5	2	2
Aluminium (Al)	6	4	13	23	18	11
Nickel (Ni)	2	<1	<1	<1	1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	14	10	4	4	3	2
Sodium (Na)	6	6	<1	2	5	1
Potassium (K)	4	4	<1	2	<1	1
Additives (ppm)						
Magnesium (Mg)	<1	<1	3	2	2	2
Calcium (Ca)	119	108	130	122	120	99
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	186	187	191	190	177	162
Zinc (Zn)	4	3	6	5	5	4
Molybdenum (Mo)	<1	<1	2	<1	<1	<1
Boron (B)	78	89	71	57	56	52
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.9	7.0	5.7	6.3
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	15	18	11	10	131	124



UIN 037EDBC

U.S. Laboratories

Atlanta, Georgia - 420
5300 OakBrook Parkway
Building 200 Suite 245
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800.394.3669

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800.726.5400

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New Zealand

Wellington

Southeast Asia

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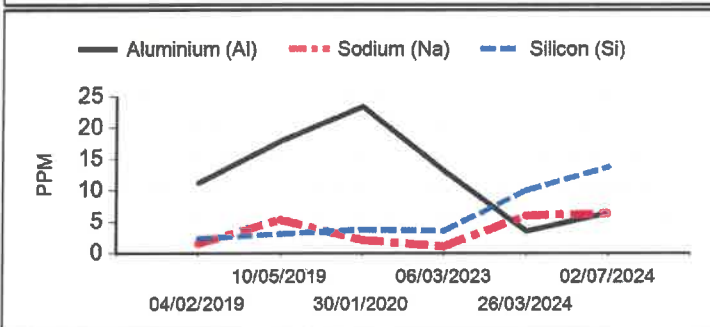
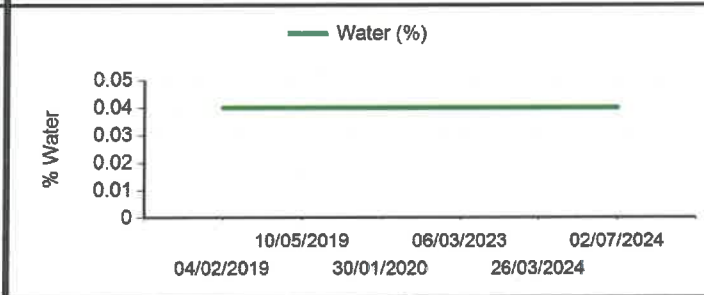
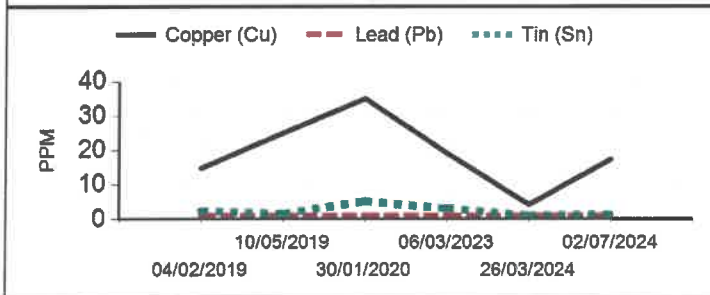
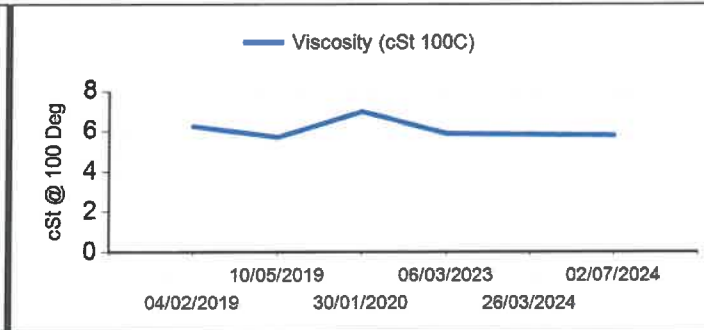
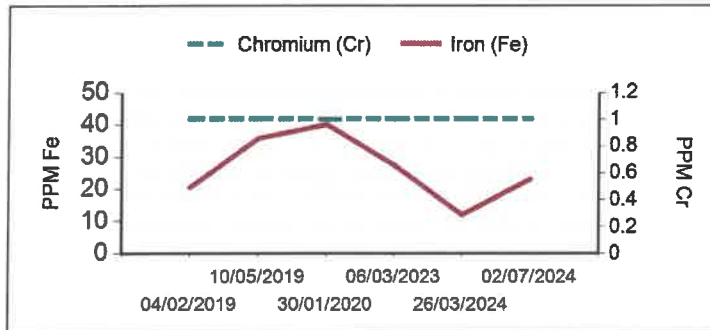
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visç/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 03521F8

Gasoline Engine

Unit No. 1303

Unit:
Make Ford
Model E-450
Serial No.

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity high for specified oil grade. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	02-Jul-24	26-Mar-24	06-Mar-23	30-Jan-20	10-May-19	04-Feb-19
DATE RECEIVED	31-Jul-24	24-Apr-24	30-Mar-23	27-Feb-20	30-Jul-19	20-Feb-19
DATE REPORTED	02-Aug-24	25-Apr-24	05-Apr-23	28-Feb-20	31-Jul-19	21-Feb-19

LAB NO.	44023403756	44023318110	44022978408	44022189832	44022068748	44021980367
SIF NO.	702897499	702897571	701689927	34144406	35084634	35084595
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	6000	6000	6000
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	7.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	11	24	9	11	9	12
Chromium (Cr)	<1	1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	1	<1	<1
Aluminium (Al)	3	6	2	4	4	3
Nickel (Ni)	<1	1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	11	14	13	14	12	13
Sodium (Na)	5	4	<1	4	4	6
Potassium (K)	<1	2	<1	2	2	1

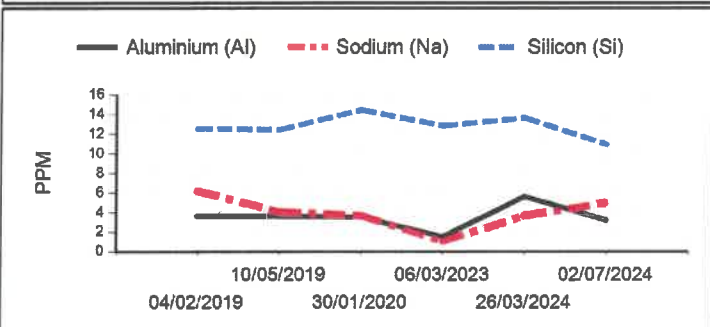
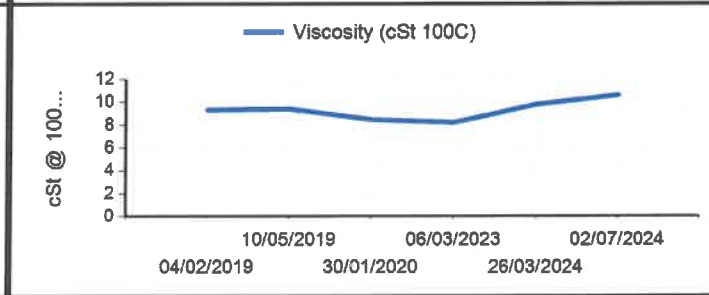
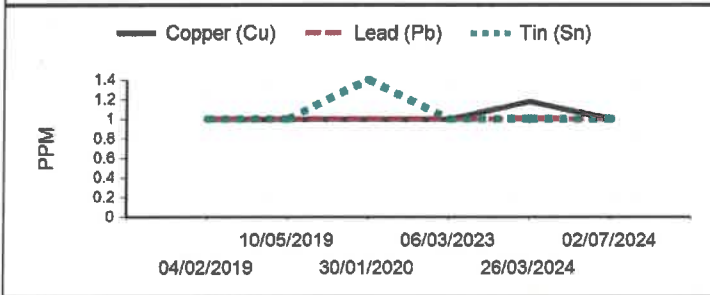
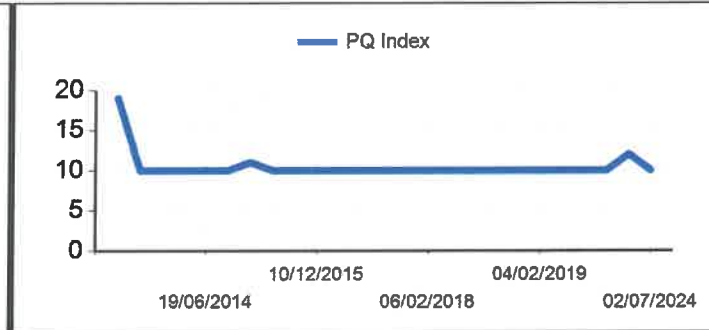
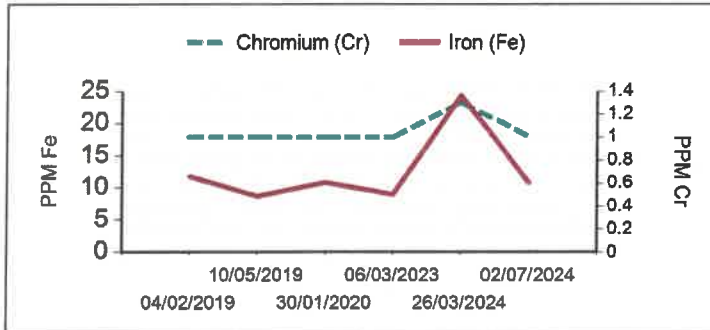
Additives (ppm)						
Magnesium (Mg)	538	486	545	542	503	480
Calcium (Ca)	1401	1405	1463	1255	1191	1220
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	683	678	731	771	647	624
Zinc (Zn)	861	856	861	881	773	791
Molybdenum (Mo)	290	290	312	192	163	169
Boron (B)	20	19	60	47	21	25

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	10.6	9.8	8.2	8.4	9.4	9.3
PQ Index	<10	12	<10	<10	<10	<10



UIN 03521F8



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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- Atlanta, Georgia - 420**
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Norcross, GA 30093
800.394.3669
 - Valley View, Ohio - 410**
6180 Halle Dr. Suite D
Valley View, OH 44125
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 - Portland, Oregon - 401**
4943 NW Front Avenue
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800.770.4128
- Canadian Laboratories**
- Burlington, Ontario - 450**
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905 332 9559
 - Edmonton, Alberta - 402**
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Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing
Houston, Texas
10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 06405F1

Diesel Engine

Unit No. 1601

Unit:
Make Freightliner
Model
Serial No. 4UZADRDU9HCJC8216

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21	22-Apr-21
DATE RECEIVED	31-Jul-24	05-Mar-24	30-Aug-22	20-Apr-22	10-Dec-21	10-May-21
DATE REPORTED	02-Aug-24	06-Mar-24	01-Sep-22	24-Apr-22	14-Dec-21	11-May-21

LAB NO.	44023403749	44023270760	44022810876	44022710219	44022619008	44022470742
SIF NO.	702897503	702897535	700592794	39776170	39776216	38635041
TIME ON UNIT	mi					
TIME ON OIL	mi					6000
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	
FILTER	mi					
OIL CHANGED	Changed	Changed		Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	16	74	6	16	8	7
Chromium (Cr)	<1	2	<1	<1	<1	<1
Lead (Pb)	<1	<1	3	<1	<1	<1
Copper (Cu)	<1	2	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	26	2	8	3	1
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	9	3	6	5	5
Sodium (Na)	2	3	3	3	1	1
Potassium (K)	4	29	2	10	3	1

Additives (ppm)						
Magnesium (Mg)	390	773	580	652	682	675
Calcium (Ca)	1796	1422	1118	1409	1272	1162
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	794	808	559	713	728	767
Zinc (Zn)	964	849	649	814	811	838
Molybdenum (Mo)	6	5	8	88	8	10
Boron (B)	26	35	77	178	87	111

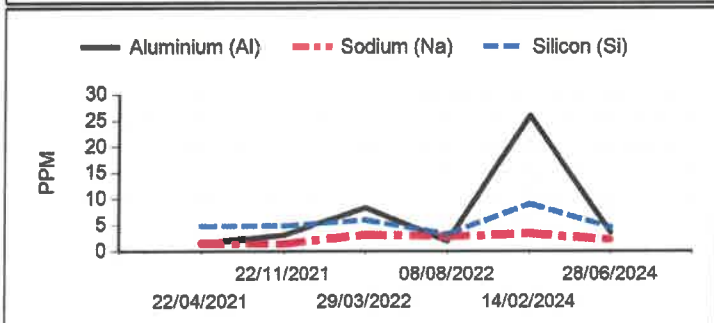
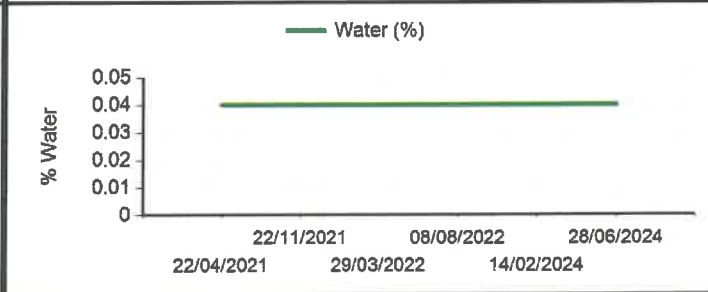
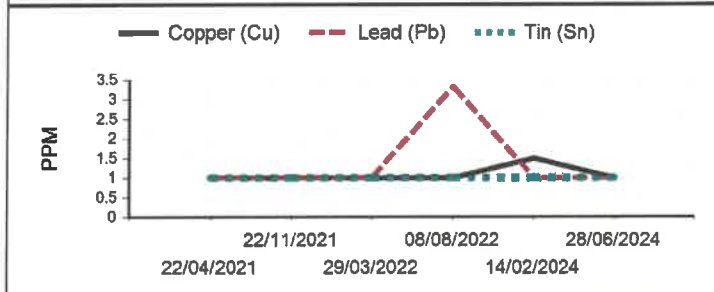
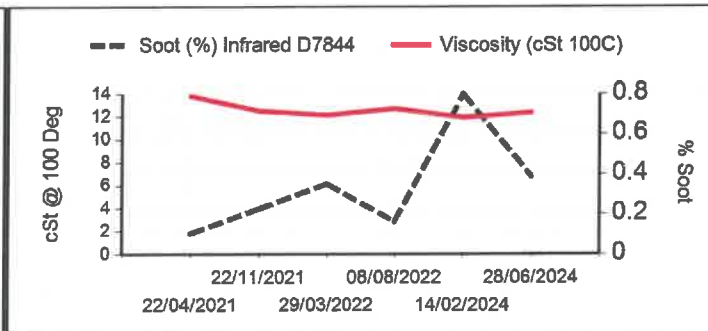
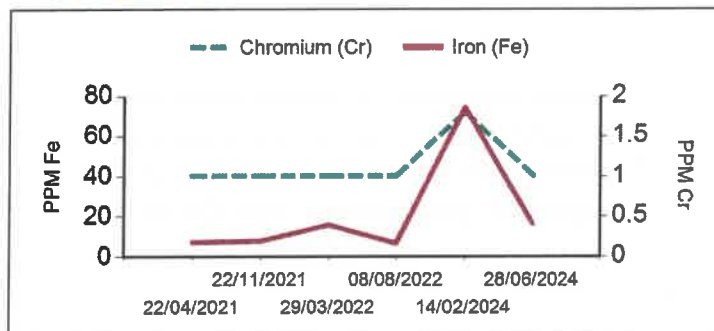
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.3	11.9	12.7	12.1	12.5	13.8
Fuel (%)	3.40	5.0	1.60	3.50	3.20	<1
PQ Index	<10	<10	<10	14	<10	<10
Soot (%) Infrared D7844	0.4	0.8	0.2	0.3	0.2	0.1





UIN 06405F1



Filter Image

Filter patch test is not performed Contact laboratory for more information

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Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 06405F2

Transmission

Unit No. 1601

Unit: Freightliner
 Make: Freightliner
 Model: .
 Serial No.: 4UZADRDU9HCJC8216

Site

Compartment: Transmission
 Name: Transmission
 Make:
 Model:
 Serial No.:

Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	28-Jun-24	14-Feb-24	08-Aug-22	29-Mar-22	22-Nov-21	22-Apr-21
DATE RECEIVED	31-Jul-24	05-Mar-24	30-Aug-22	04-May-22	10-Dec-21	10-May-21
DATE REPORTED	02-Aug-24	06-Mar-24	01-Sep-22	05-May-22	14-Dec-21	11-May-21

LAB NO.	44023403753	44023270761	44022810875	44022722126	44022619009	44022470743
SIF NO.	702897504	702897536	700592793	39776155	39776220	38635044
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	12000	Unidentified	12000
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0			8.0	
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	21	27	8	15	16	16
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	1	2	4	2	2	2
Copper (Cu)	8	10	3	6	6	6
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	2	2	1	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	4	4	4	5	4
Sodium (Na)	2	2	1	4	2	<1
Potassium (K)	<1	<1	<1	<1	1	<1

Additives (ppm)						
Magnesium (Mg)	25	43	35	19	3	6
Calcium (Ca)	78	106	82	87	69	48
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	228	300	222	253	208	209
Zinc (Zn)	41	68	51	48	30	21
Molybdenum (Mo)	2	3	2	1	<1	<1
Boron (B)	85	98	84	85	88	81

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.7	6.9	7.1	6.8	6.8	7.0
Solids (%)	0.1	<0.1	<0.1	0.1	<0.1	<0.1

Additional						
PQ Index	10	11	<10	11	<10	<10



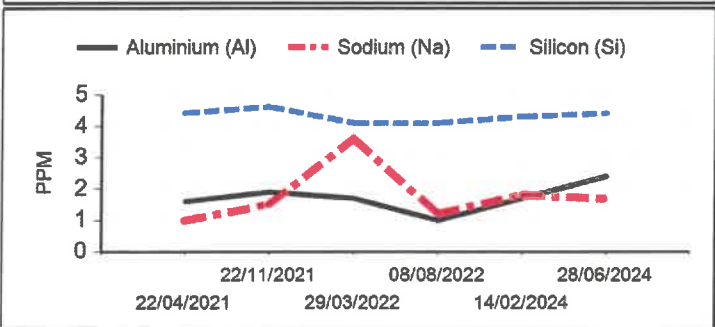
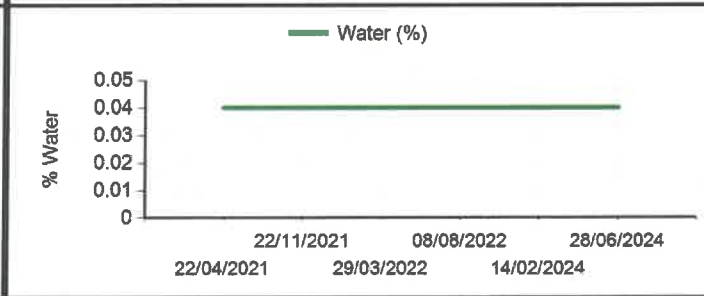
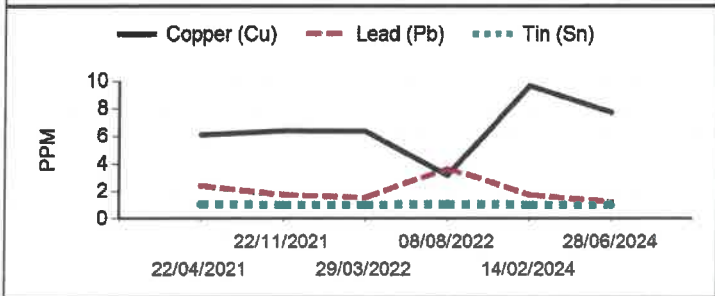
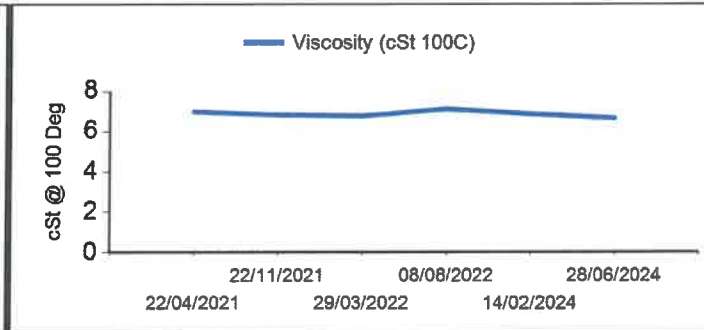
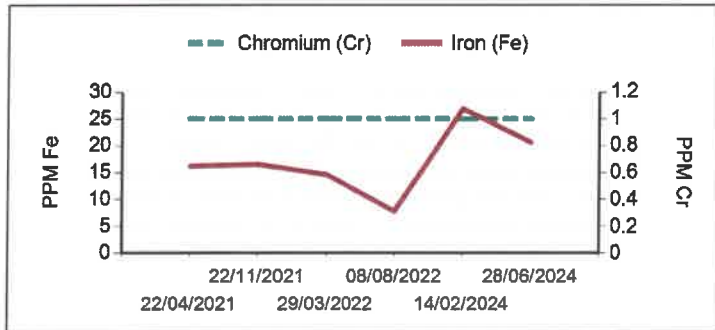
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 06405F2



Filter Image

Filter patch test is not performed Contact laboratory for more information

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Kuala Lumpur, Singapore
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Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 0AC42CE

Gasoline Engine

Unit No. 2404

Unit:
Make Ford
Model E-450
Serial No. 1FDEFE4FN6RDD39191

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 8.0 qt

Customer:
PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample at next recommended interval to monitor and establish wear trend.

DATE SAMPLED	25-Jun-24
DATE RECEIVED	31-Jul-24
DATE REPORTED	02-Aug-24

LAB NO.	44023403750
SIF NO.	702897505
TIME ON UNIT	mi
TIME ON OIL	mi
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	SAE 5W30
OIL ADDED	qt 8.0
FILTER	mi
OIL CHANGED	Changed
WO NUMBER	

Metals (ppm)	
Iron (Fe)	7
Chromium (Cr)	<1
Lead (Pb)	<1
Copper (Cu)	2
Tin (Sn)	<1
Aluminium (Al)	2
Nickel (Ni)	1
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)	
Silicon (Si)	17
Sodium (Na)	5
Potassium (K)	1

Additives (ppm)	
Magnesium (Mg)	546
Calcium (Ca)	1375
Barium (Ba)	<1
Phosphorus (P)	675
Zinc (Zn)	877
Molybdenum (Mo)	290
Boron (B)	32

Contaminants	
Water (%)	<0.05
Coolant	No

Physical Tests	
Viscosity (cSt 100C)	10.4
PQ Index	<10



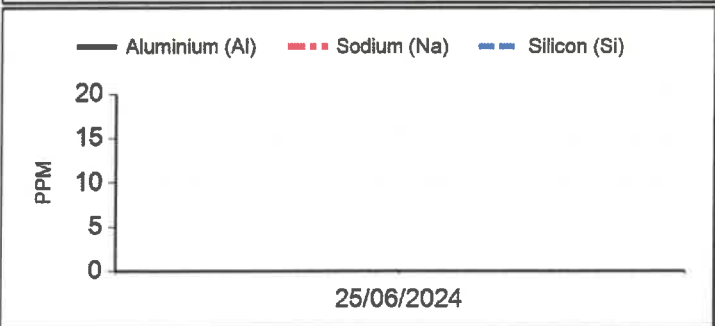
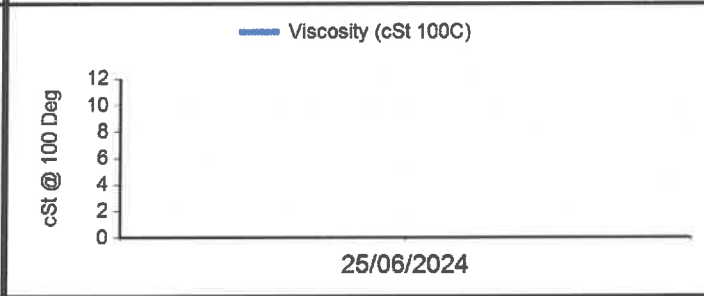
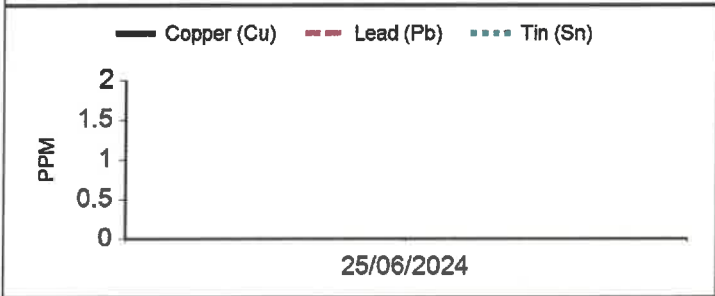
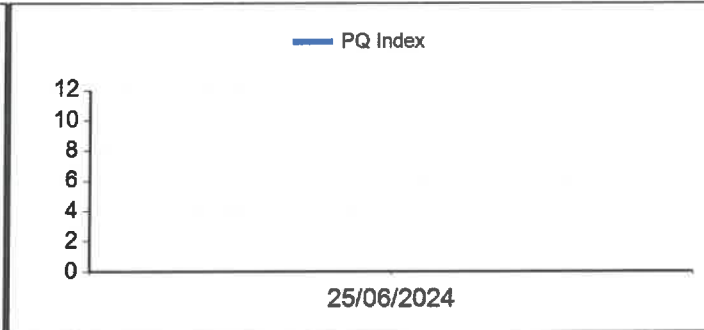
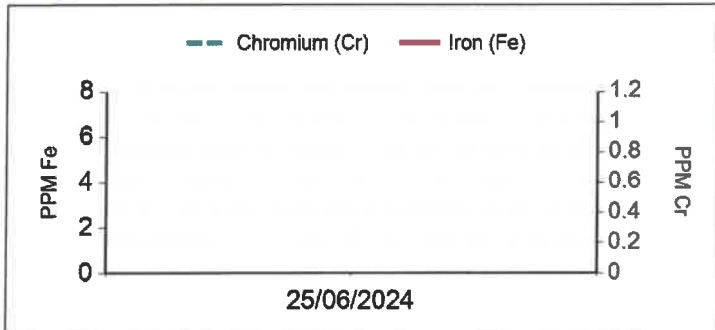
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 0AC42CE



Filter Image

Filter patch test is not performed Contact laboratory for more information

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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method

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UIN 0AC42CF

Transmission

Unit No. 2404

Unit: Ford
Make: E-450
Model: 1FDEFE4FN6RDD39191
Serial No.

Site

Compartment: Transmission
Name:
Make:
Model:
Serial No.:
Capacity: qt

Customer: PARATRANSIT SERVICES
PO Box 698
Lower Lake Ca 95457
USA

DIAGNOSIS

Aluminium level elevated. All other wear levels appear satisfactory for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: Resample at next recommended interval to monitor and establish wear trend.

ANALYST: aaron.cotton

LEGEND: Caution, Severe, Abnormal, Caution, Normal icons

Table with 2 columns: DATE SAMPLED (25-Jun-24), DATE RECEIVED (31-Jul-24), DATE REPORTED (02-Aug-24)

Table with 2 columns: LAB NO. (44023403751), SIF NO. (702897506), TIME ON UNIT (mi), OIL BRAND (Unidentified), OIL TYPE (Unidentified), OIL GRADE (Unknown), OIL ADDED (qt), FILTER (mi), OIL CHANGED (Not Changed), WO NUMBER

Table with 2 columns: Metals (ppm) including Iron (Fe) 29, Chromium (Cr) <1, Lead (Pb) <1, Copper (Cu) 19, Tin (Sn) 1, Aluminium (Al) 28, Nickel (Ni) 2, Silver (Ag) <1, Titanium (Ti) <1, Vanadium (V) <1

Table with 2 columns: Contaminants (ppm) including Silicon (Si) 8, Sodium (Na) 3, Potassium (K) <1

Table with 2 columns: Additives (ppm) including Magnesium (Mg) 1, Calcium (Ca) 127, Barium (Ba) <1, Phosphorus (P) 191, Zinc (Zn) 5, Molybdenum (Mo) 6, Boron (B) 69

Table with 2 columns: Contaminants including Water (%) <0.05

Table with 2 columns: Physical Tests including Viscosity (cSt 100C) 5.8, Solids (%) 0.1

Table with 2 columns: Additional PQ Index 14





UIN 0AC42CF

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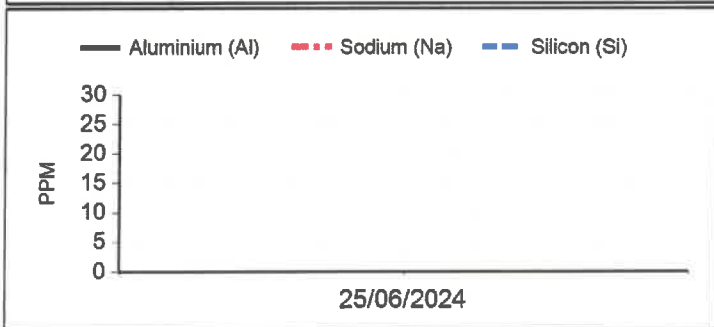
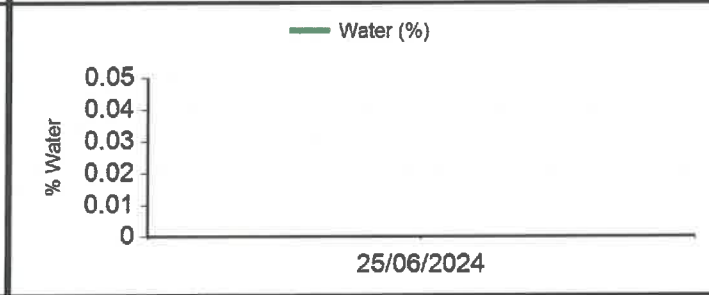
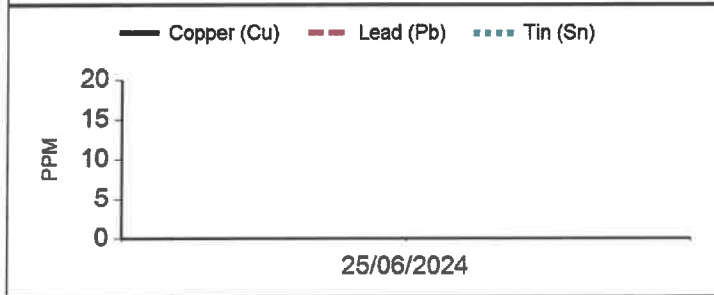
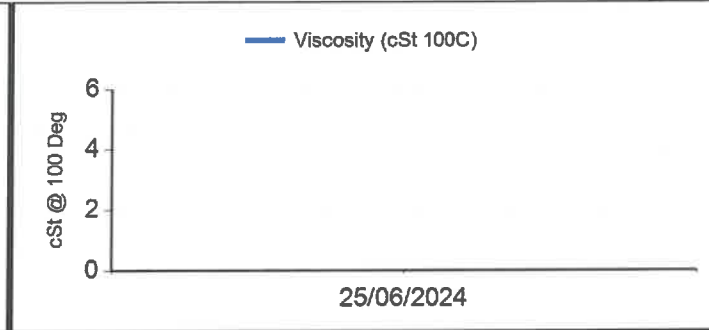
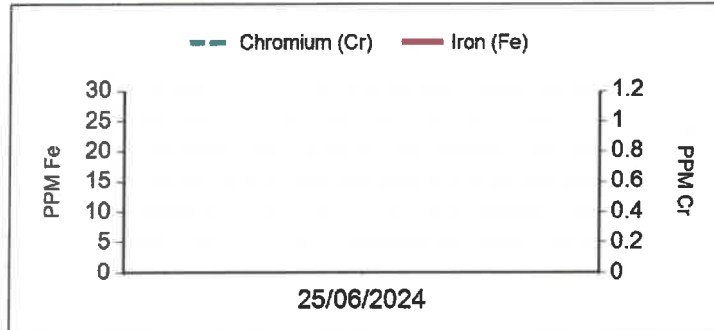
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 086A56A

Transmission

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample next recommended service interval to further monitor.

ANALYST: aaron.cotton

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23	29-Sep-22
DATE RECEIVED	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23	14-Oct-22
DATE REPORTED	02-Jul-24	26-Mar-24	10-Nov-23	27-Jun-23	20-Jan-23	17-Oct-22

LAB NO.	44023376818	44023289152	44023169868	43021792840	44022918315	44022843563
SIF NO.	702897553	702897588	701689945	701689896	700592872	700592881
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	79	79	65	59	55	63
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	1
Copper (Cu)	9	13	11	12	15	17
Tin (Sn)	2	2	1	<1	<1	<1
Aluminium (Al)	46	46	25	20	20	20
Nickel (Ni)	2	2	2	2	2	3
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	9	<1	6	6	5	7
Sodium (Na)	2	3	2	3	6	1
Potassium (K)	1	<1	<1	<1	2	1

Additives (ppm)						
Magnesium (Mg)	2	1	3	6	2	2
Calcium (Ca)	124	143	118	162	128	132
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	184	211	183	212	200	215
Zinc (Zn)	4	10	5	18	5	5
Molybdenum (Mo)	2	3	3	5	5	6
Boron (B)	71	62	65	83	77	97

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.7	5.8	5.8	5.8	5.7	5.6
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	19	17	21	14	<10	13





UIN 086A56A

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 800.726.5400

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Kuala Lumpur, Singapore

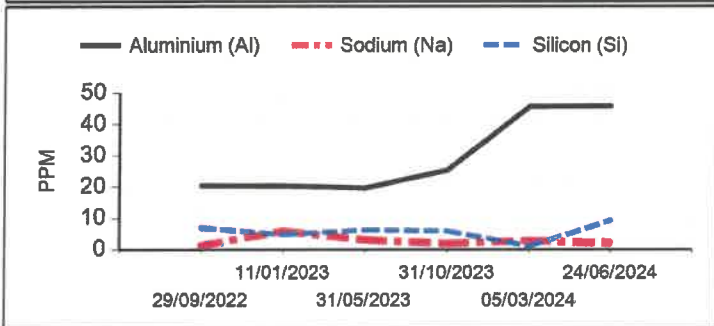
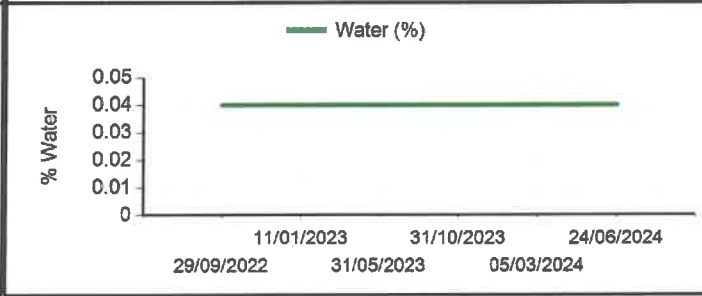
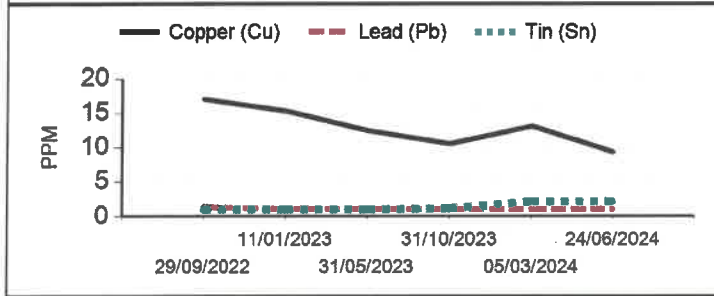
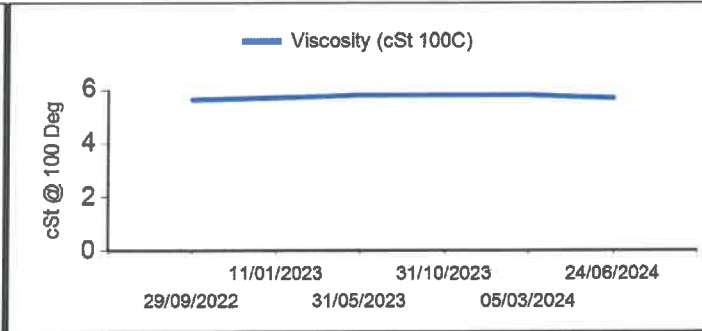
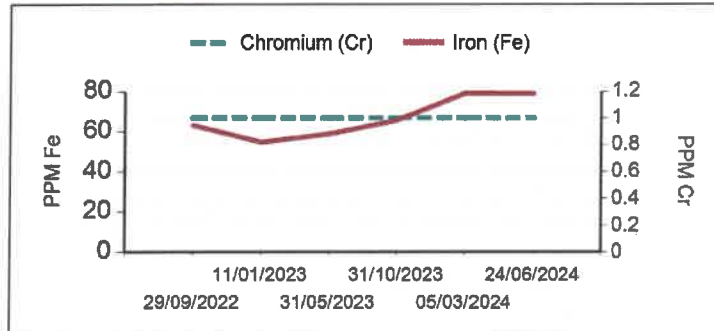
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E92A3

Gasoline Engine

Unit No. 1902

Unit:
Make Ford Transit Van
Model
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	24-Jun-24	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23	29-Sep-22
DATE RECEIVED	01-Jul-24	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23	14-Oct-22
DATE REPORTED	01-Jul-24	25-Mar-24	10-Nov-23	24-Jun-23	20-Jan-23	17-Oct-22

LAB NO.	44023376817	44023289153	44023169867	43021792839	44022918314	44022843562
SIF NO.	702897554	702897587	701689944	701689897	700592875	700592882
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0		
FILTER	mi					
OIL CHANGED		Changed	Changed	Changed	Changed	Not Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	13	9	23	10	13	25
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	8	19	16	36	45
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	4	6	3	7	17
Nickel (Ni)	5	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	2	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	22	8	24	12	21	38
Sodium (Na)	11	5	7	7	6	5
Potassium (K)	2	<1	2	<1	3	3

Additives (ppm)						
Magnesium (Mg)	505	545	454	573	644	274
Calcium (Ca)	1314	1542	1366	1671	1101	1494
Barium (Ba)	<1	<1	<1	<1	2	13
Phosphorus (P)	657	748	647	777	548	670
Zinc (Zn)	862	928	806	968	655	741
Molybdenum (Mo)	280	319	266	330	54	124
Boron (B)	14	17	19	33	47	216

Contaminants						
Water (%)	<0.05	<0.05	0.11	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.6	8.2	10.5	8.1	8.0	7.6
PQ Index	<10	10	11	<10	<10	<10



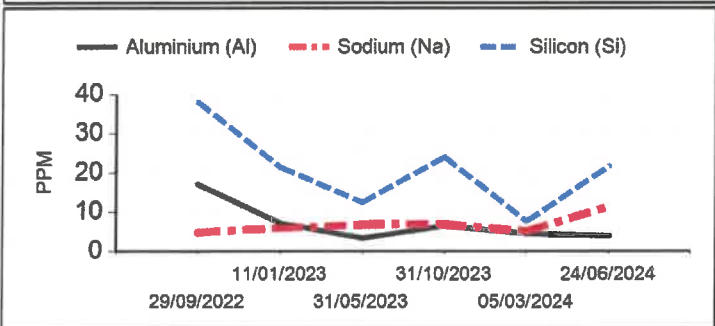
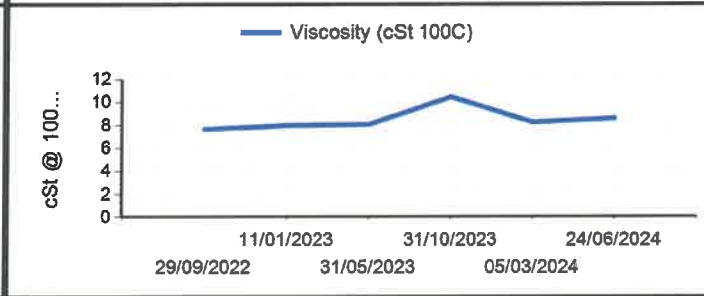
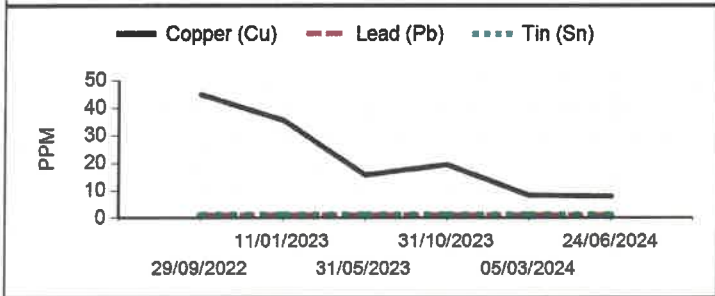
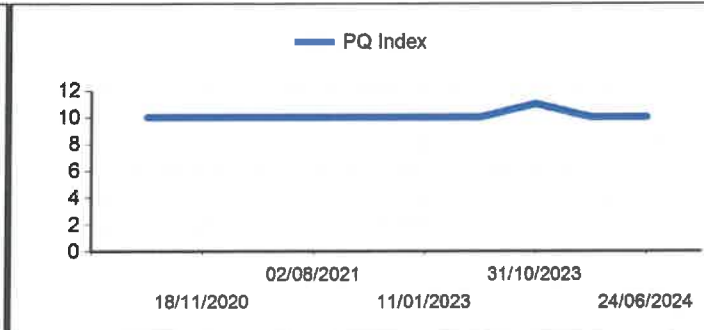
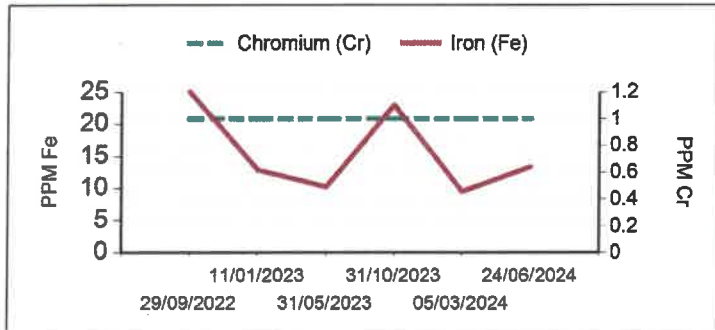
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 07E92A3



Filter Image

Filter patch test is not performed Contact laboratory for more information

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Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

***M - Modified Method**



UIN 081ABA1

Transmission

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 8.0

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Check for any abnormal noise, vibration, or poor performance. As oil already changed, resample at a reduced service interval to further monitor.

DATE SAMPLED	20-Jun-24	07-Mar-24	09-Oct-23	25-May-23	18-Jan-23	03-Aug-22
DATE RECEIVED	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23	15-Aug-22
DATE REPORTED	02-Jul-24	26-Mar-24	23-Oct-23	08-Jun-23	03-Feb-23	16-Aug-22
LAB NO.	44023376816	44023289157	44023153375	44023033927	44022929711	44022798275
SIF NO.	702897552	702897584	701689938	701689979	700592813	700592828
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	3.0	3.0			3.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	
WO NUMBER						
Metals (ppm)						
Iron (Fe)	82	90	102	77	47	37
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	11	11	10	9	12
Tin (Sn)	3	4	3	3	2	2
Aluminium (Al)	70	87	82	55	29	17
Nickel (Ni)	3	3	4	5	4	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	12	5	12	9	5	5
Sodium (Na)	2	2	<1	1	<1	3
Potassium (K)	<1	<1	2	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	3	3	4	5	3	6
Calcium (Ca)	127	133	127	133	121	129
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	180	198	194	176	183	179
Zinc (Zn)	6	6	7	7	5	10
Molybdenum (Mo)	1	2	2	3	2	4
Boron (B)	66	58	72	64	51	59
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.8	5.8	5.8	5.8
Solids (%)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	20	16	12	12	12	12

ANALYST: roldan.beldad

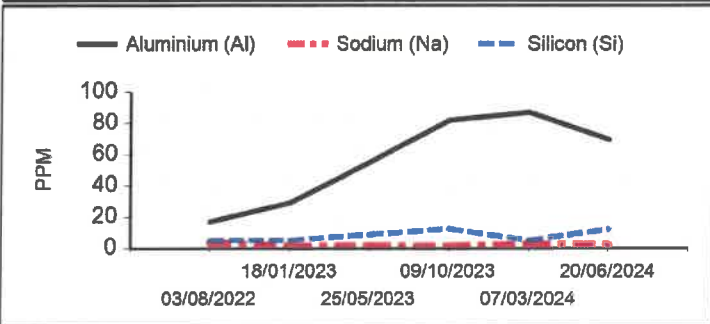
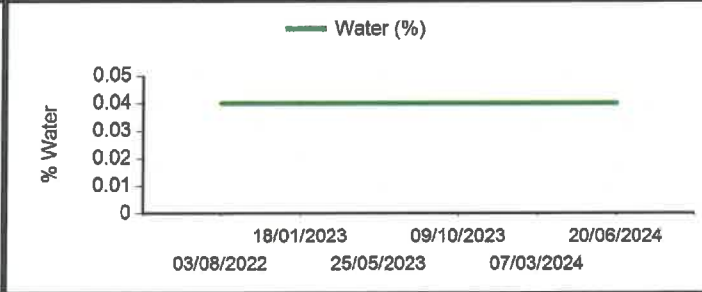
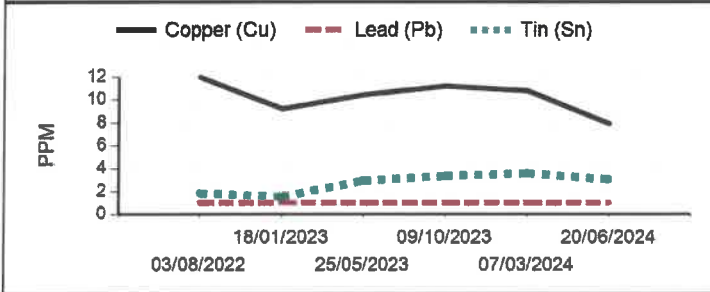
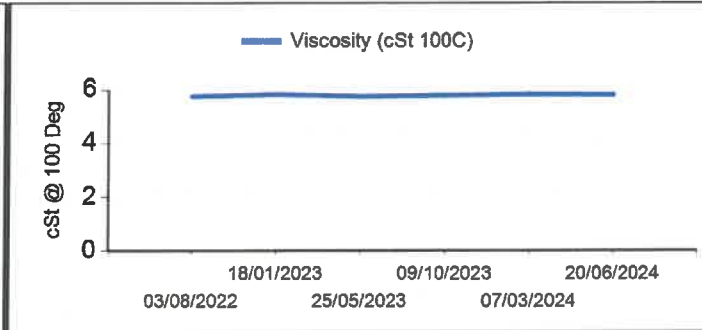
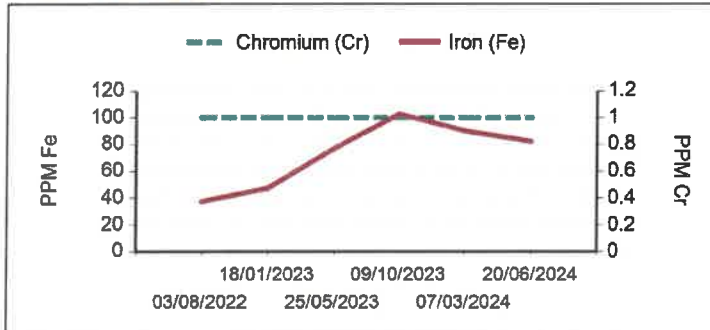
LEGEND

Severe	Severe	Abnormal	Caution	Normal

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UIN 081ABA1



Filter Image

Filter patch test is not performed Contact laboratory for more information

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Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method

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UIN 07CB197

Gasoline Engine

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

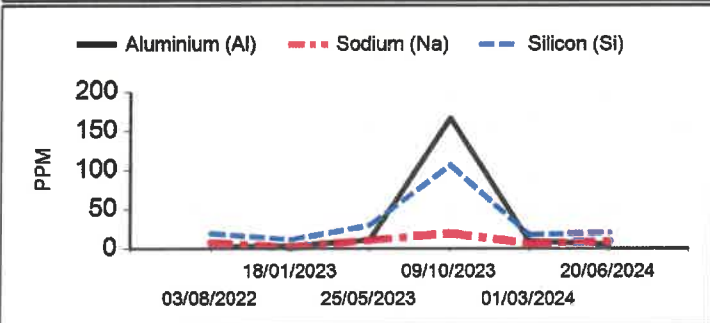
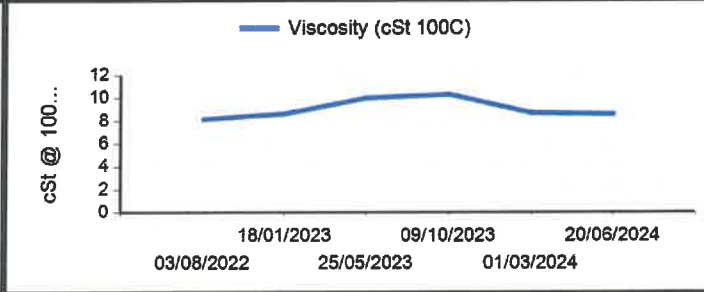
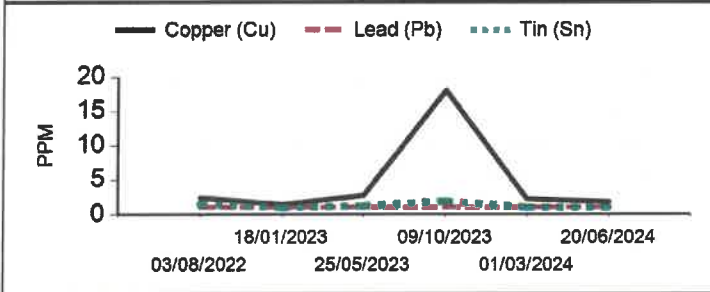
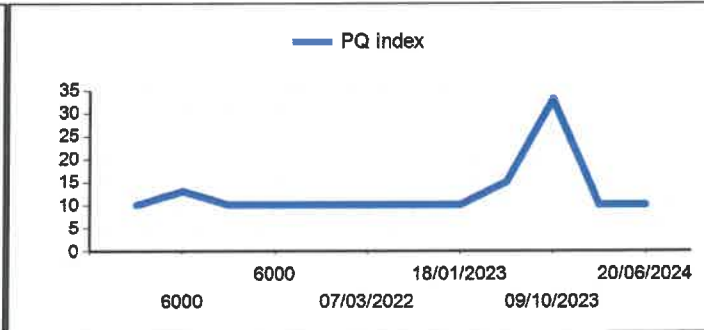
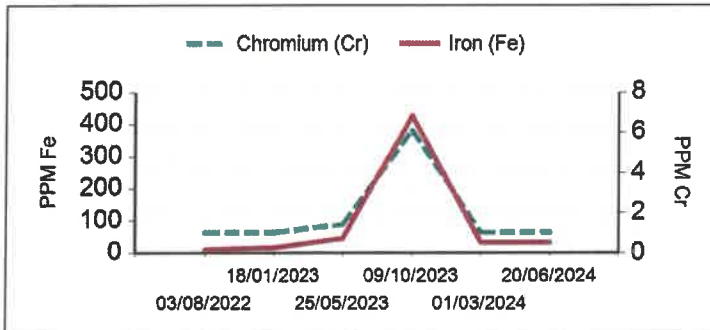
LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	20-Jun-24	01-Mar-24	09-Oct-23	25-May-23	18-Jan-23	03-Aug-22
DATE RECEIVED	01-Jul-24	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23	15-Aug-22
DATE REPORTED	01-Jul-24	25-Mar-24	23-Oct-23	14-Jun-23	03-Feb-23	16-Aug-22
LAB NO.	44023376815	44023289156	44023153376	44023033926	44022929710	44022798282
SIF NO.	702897551	702897583	701689939	701689978	700592814	700592830
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Havoline ProDS Full	Havoline ProDS Full	Havoline ProDS	Havoline ProDS Full	Havoline ProDS	Havoline ProDS
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0		6.0	
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	
WO NUMBER						
Metals (ppm)						
Iron (Fe)	32	31	426	44	15	10
Chromium (Cr)	<1	<1	6	1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	2	18	3	1	2
Tin (Sn)	<1	<1	2	1	<1	2
Aluminium (Al)	5	10	166	11	3	2
Nickel (Ni)	3	<1	4	1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	19	17	106	29	11	19
Sodium (Na)	9	6	18	10	<1	7
Potassium (K)	2	1	3	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	560	552	577	541	440	516
Calcium (Ca)	1410	1648	1611	1523	1232	1471
Barium (Ba)	<1	<1	19	<1	<1	<1
Phosphorus (P)	719	786	799	702	680	684
Zinc (Zn)	946	981	975	869	817	842
Molybdenum (Mo)	299	326	328	308	180	298
Boron (B)	20	15	22	17	20	23
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.6	8.7	10.3	10.0	8.6	8.2
PQ Index	<10	<10	33	15	<10	<10

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UIN 07CB197



Filter Image

Filter patch test is not performed Contact laboratory for more information

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New Zealand
 Wellington

Southeast Asia
 Kuala Lumpur, Singapore

Europe
 Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 065F365

Transmission

Unit No. 1713

Unit:
Make Freightliner
Model S2
Serial No. 4UZADREDIJCJT5538

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 18.0 gal

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	17-Jun-24	14-Sep-23	12-Aug-22	19-Apr-22	02-Dec-21	23-Jun-21
DATE RECEIVED	01-Jul-24	20-Sep-23	30-Aug-22	26-May-22	26-Jan-22	21-Jul-21
DATE REPORTED	02-Jul-24	25-Sep-23	01-Sep-22	28-May-22	27-Jan-22	22-Jul-21
LAB NO.	44023376819	44023128160	44022810874	44022740948	44022647160	44022520519
SIF NO.	702897550	701689911	700592792	39776187	39776223	38635008
TIME ON UNIT						20000
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	ATF	ATF	ATF	ATF
OIL GRADE	Unknown	Unknown	ATF	ATF	ATF	ATF
OIL ADDED	gal 8.0					
FILTER	Not Applicable					
OIL CHANGED	Changed	Changed	Not Changed		Not Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	43	53	24	24	22	24
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	3	<1	5	<1
Copper (Cu)	5	7	4	4	8	6
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	3	4	2	2	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	6	6	5	6	6	6
Sodium (Na)	2	2	1	2	1	2
Potassium (K)	<1	2	<1	1	<1	1
Additives (ppm)						
Magnesium (Mg)	28	40	34	37	19	2
Calcium (Ca)	92	126	90	111	87	112
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	226	258	217	261	229	244
Zinc (Zn)	43	62	55	65	47	45
Molybdenum (Mo)	1	2	2	2	1	<1
Boron (B)	88	87	84	104	98	112
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.8	6.4	6.8	6.7	6.9	6.9
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	16	<10	<10	<10	47	<10

ANALYST: roldan.beldad

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 065F365

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International Locations

Australia

Brisbane, Perth, Sydney, Muswellbrook

South America

Santiago de Chile, Belo Horizonte, Brazil

New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

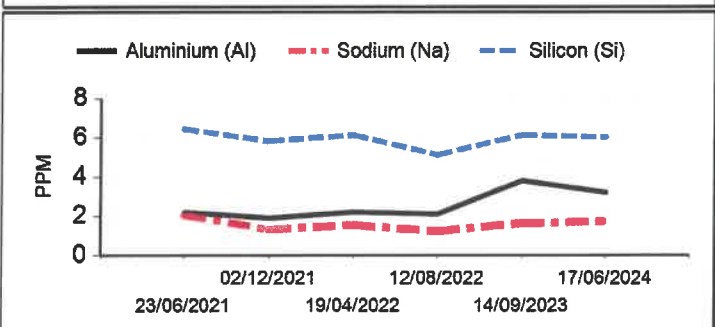
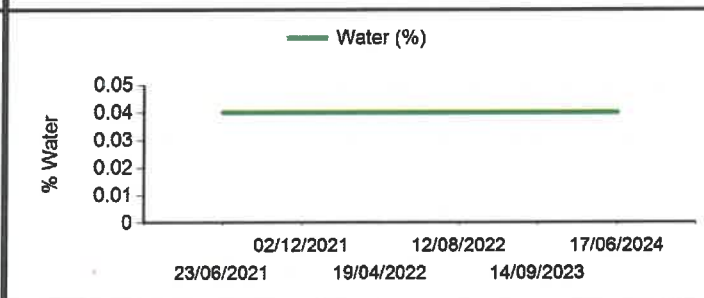
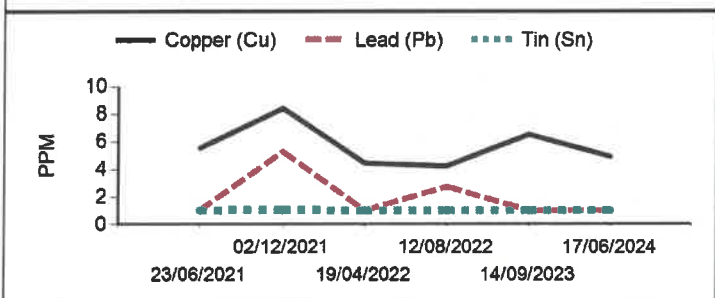
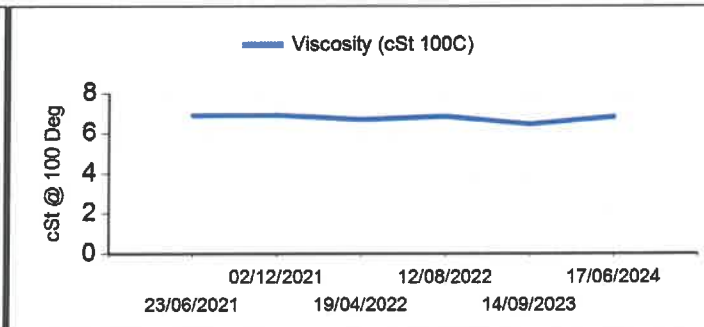
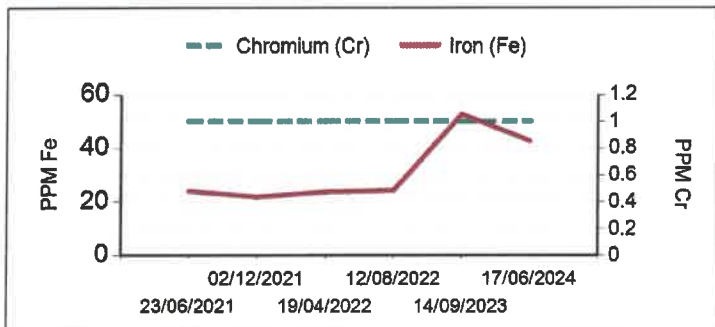
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0650DB1

Diesel Engine

Unit No. 1713

Unit:
Make Freightliner
Model S2
Serial No. 4UZADREDIJCJT5538

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Fuel dilution at problem level. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Viscosity low for specified oil grade. Action: Check fueling system. As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

	LEGEND			
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	17-Jun-24	14-Sep-23	12-Aug-22	19-Apr-22	02-Dec-21	23-Jun-21
DATE RECEIVED	01-Jul-24	20-Sep-23	30-Aug-22	26-May-22	26-Jan-22	21-Jul-21
DATE REPORTED	02-Jul-24	25-Sep-23	01-Sep-22	28-May-22	27-Jan-22	22-Jul-21

LAB NO.	44023376820	44023128159	44022810873	44022740947	44022647159	44022520518
SIF NO.	702897549	701689910	700592791	39776188	39776222	38635009
TIME ON UNIT	mi					6000
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt					
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	11	18	26	11	11	6
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	3	<1	3	<1
Copper (Cu)	<1	3	1	<1	<1	<1
Tin (Sn)	<1	<1	1	<1	<1	<1
Aluminium (Al)	2	3	3	3	2	2
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	8	6	5	6	5
Sodium (Na)	2	3	4	3	2	3
Potassium (K)	3	4	3	3	2	4

Additives (ppm)						
Magnesium (Mg)	747	778	750	742	681	688
Calcium (Ca)	1161	1280	1501	1459	1509	1468
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	677	720	708	737	764	738
Zinc (Zn)	825	842	857	847	886	830
Molybdenum (Mo)	9	4	25	37	2	2
Boron (B)	88	47	55	120	67	91

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	11.4	11.9	12.9	12.0	12.8	13.2
Fuel (%)	6.2	4.7	<1	3.70	1.10	<1
PQ Index	10	<10	<10	<10	<10	<10
Soot (%) Infrared D7844	0.2	0.2	0.2	0.2	0.1	<0.1



UIN 0650DB1

U.S. Laboratories

Atlanta, Georgia - 420 5300 OakBrook Parkway Building 200 Suite 245 Norcross, GA 30093 800.394.3669	Valley View, Ohio - 410 6180 Halle Dr. Suite D Valley View, OH 44125 800.726.5400
Kansas City, Kansas - 430 935 Sunshine Road Kansas City, KS 66115 800.332.8055	Phoenix, Arizona - 440 3319 West Earll Drive Phoenix, AZ 85017 800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
Portland, OR 97210
800.770.4128

Canadian Laboratories

Burlington, Ontario - 450 5036 South Service Rd. Burlington, ON L7L5Y7 905 332 9559	Edmonton, Alberta - 402 9450 17 Ave NW Edmonton, AB T6N 1M9 +1 (780) 483-1036
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877.835.8437

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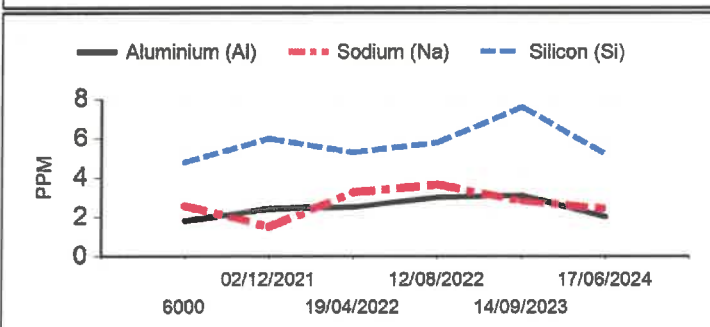
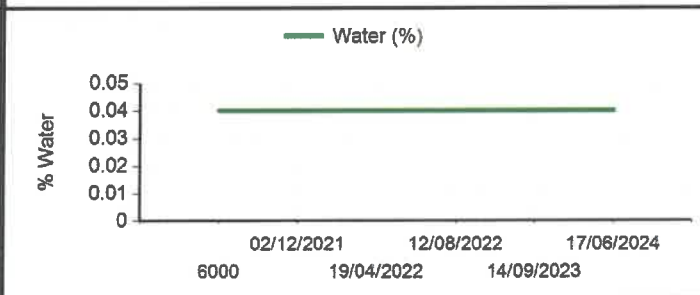
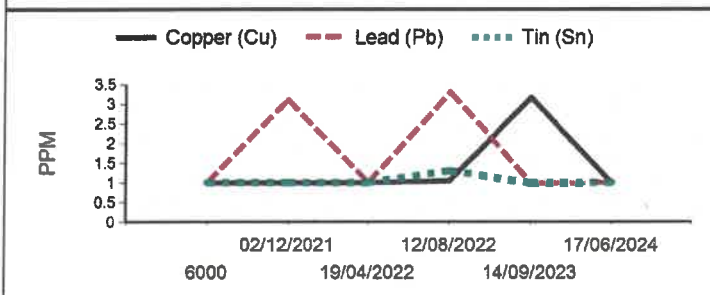
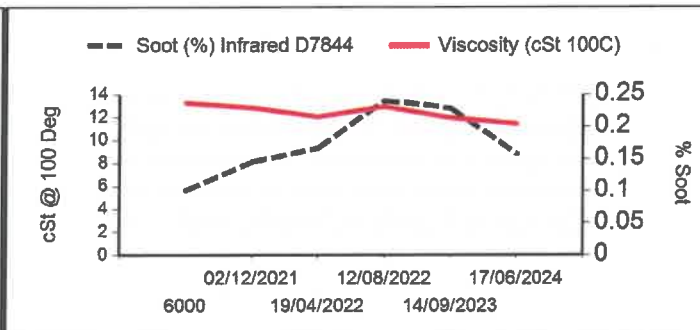
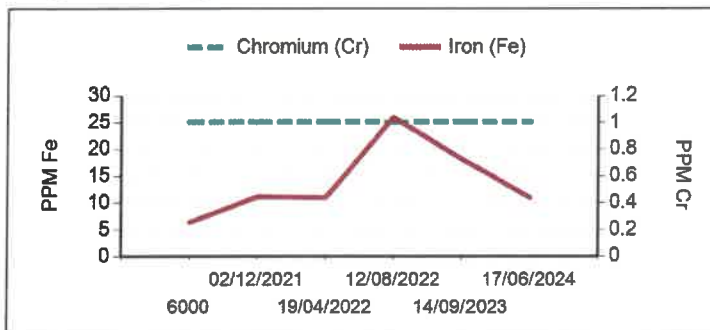
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 0542C09

Automatic Transmission

Unit No. 1501

Unit:

Make

Model

Serial No.

Site

Compartment:

Name Automatic Transmission

Make

Model

Serial No.

Capacity:

Customer:

PARATRANSIT SERVICES

PO Box 698

Lower Lake Ca 95457

USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

DATE SAMPLED	11-Jun-24	08-Feb-24	12-Oct-23	27-Oct-22	07-Oct-22	24-May-22
DATE RECEIVED	01-Jul-24	05-Mar-24	20-Oct-23	29-Dec-22	11-Oct-24	15-Jun-22
DATE REPORTED	01-Jul-24	06-Mar-24	23-Oct-23	30-Dec-22	12-Oct-24	16-Jun-22
LAB NO.	44023376813	44023270759	44023153285	44022901465	44023468889	44022754396
SIF NO.	702897556	702897533	701689933	700592826	704538874	39776181
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED			8.0			
FILTER	Not Applicable					
OIL CHANGED	Not Changed	Not Changed	Changed	Not Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	7	7	8	9	6	8
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	2	3	4	2	3
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	<1	<1	2	1	1	1
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	3	3	4	4	4
Sodium (Na)	1	2	<1	<1	1	3
Potassium (K)	<1	<1	2	1	<1	<1
Additives (ppm)						
Magnesium (Mg)	23	39	40	34	20	31
Calcium (Ca)	82	130	119	95	77	93
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	221	289	254	244	226	239
Zinc (Zn)	36	59	62	61	30	64
Molybdenum (Mo)	<1	1	3	2	<1	2
Boron (B)	89	99	93	88	87	82
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.7	7.1	6.9	6.8	7.1	6.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	<10	<10	<10	<10	<10	11



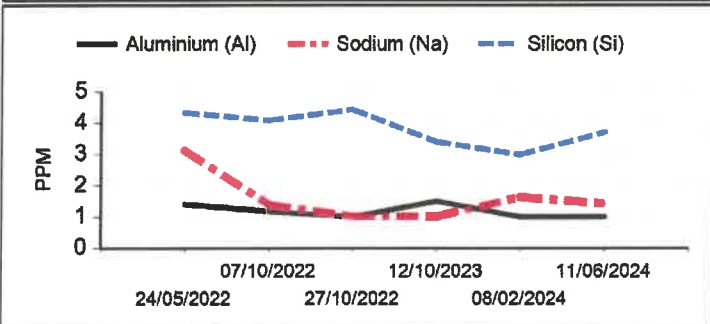
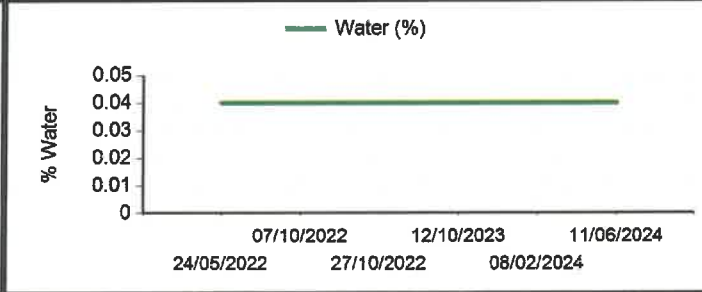
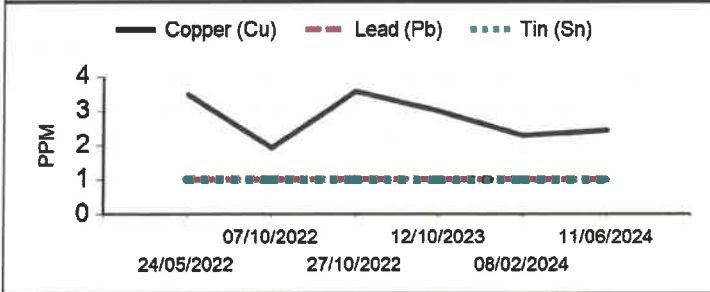
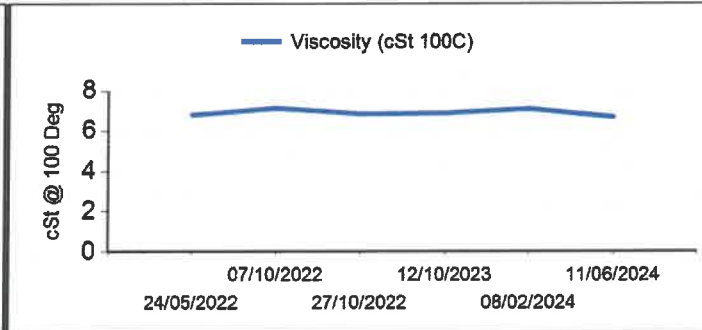
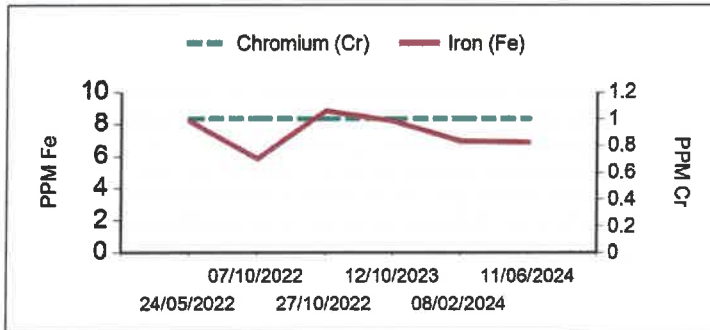
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

Right Solutions • Right Partner



UIN 0542C09



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

- U.S. Laboratories**
- Atlanta, Georgia - 420**
5300 OakBrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669
 - Valley View, Ohio - 410**
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400
 - Kansas City, Kansas - 430**
935 Sunshine Road
Kansas City, KS 66115
800.332.8055
 - Phoenix, Arizona - 440**
3319 West Earl Drive
Phoenix, AZ 85017
800.445.7930
 - Portland, Oregon - 401**
4943 NW Front Avenue
Portland, OR 97210
800.770.4128
- Canadian Laboratories**
- Burlington, Ontario - 450**
5036 South Service Rd.
Burlington, ON L7L5Y7
905.332.9559
 - Edmonton, Alberta - 402**
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing
Houston, Texas
10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

International Locations

- Australia**
Brisbane, Perth, Sydney, Muswellbrook
- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 05376A9

Diesel Engine

Unit No. 1501

Unit:
Make
Model
Serial No.

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	11-Jun-24	08-Feb-24	12-Oct-23	27-Oct-22	24-May-22	31-Jan-22
DATE RECEIVED	01-Jul-24	05-Mar-24	20-Oct-23	29-Dec-22	15-Jun-22	24-Feb-22
DATE REPORTED	02-Jul-24	06-Mar-24	23-Oct-23	30-Dec-22	17-Jun-22	01-Mar-22

LAB NO.	44023376814	44023270758	44023153286	44022901466	44022754395	44022669781
SIF NO.	702897555	702897534	701689932	700592825	39776176	39776237
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					6000
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	20	30	24	11	12	14
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	<1	1	<1
Aluminium (Al)	4	10	13	3	4	6
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	6	7	6	5	6
Sodium (Na)	2	3	1	<1	6	3
Potassium (K)	3	7	8	3	2	3

Additives (ppm)						
Magnesium (Mg)	412	858	855	748	695	684
Calcium (Ca)	1803	1501	1405	1354	1302	1478
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	828	898	814	739	726	719
Zinc (Zn)	1031	949	927	825	886	861
Molybdenum (Mo)	6	4	4	6	23	92
Boron (B)	24	96	83	81	92	198

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	12.8	12.8	13.2	13.1	13.0	12.5
Fuel (%)	1.70	1.80	<1	<1	<1	2.00
PQ Index	<10	10	<10	10	11	10
Soot (%) Infrared D7844	0.4	0.3	0.4	0.3	0.3	0.4



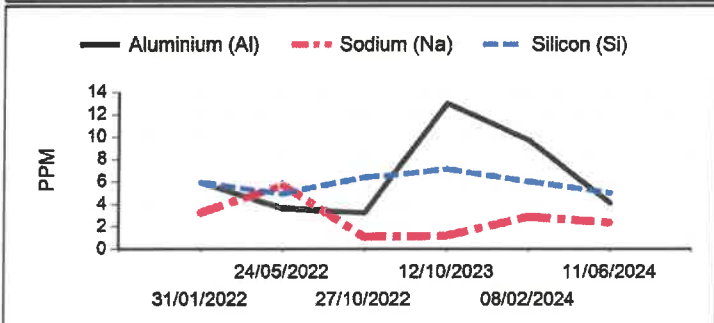
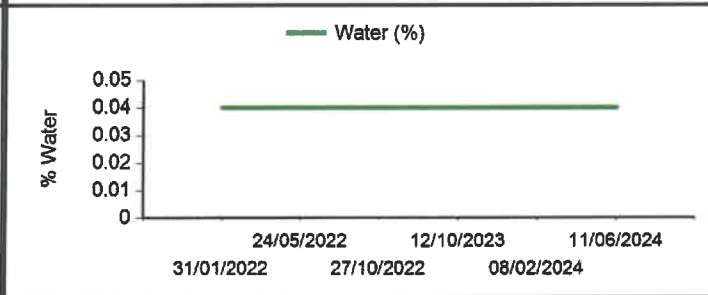
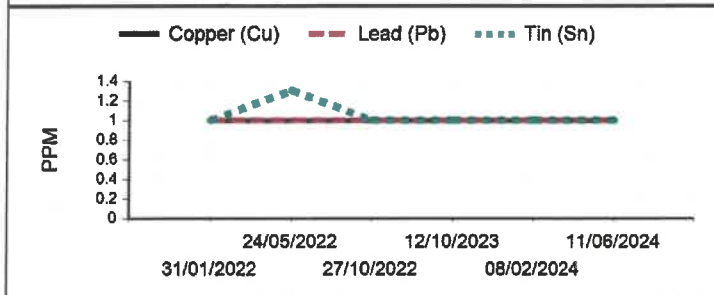
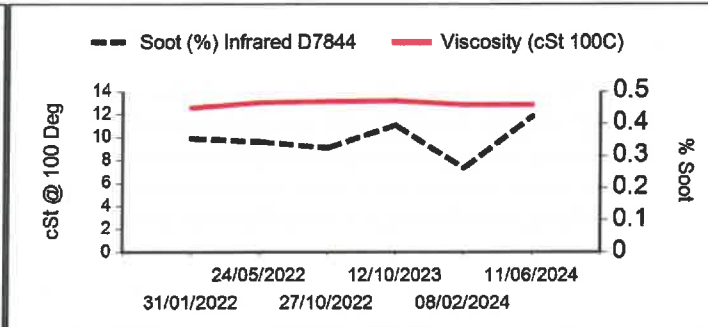
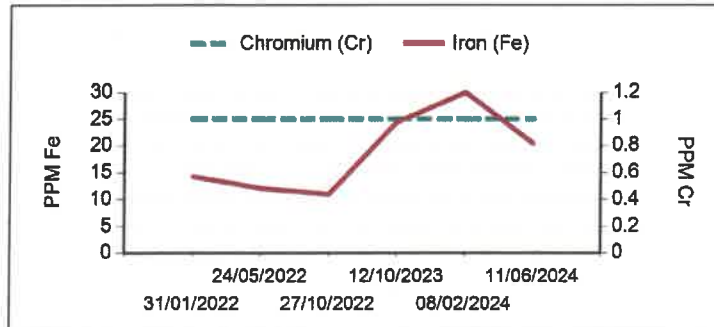
ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

Right Solutions • Right Partner



UIN 05376A9



Filter Image

Filter patch test is not performed Contact laboratory for more information

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- South America**
Santiago de Chile, Belo Horizonte, Brazil
- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
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PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 073BD60

Diesel Engine

Unit No. 1801

Unit:
Make Freightliner
Model
Serial No. 4UZADRFDXKCKY3513

Site

Compartment:

Name Diesel Engine
Make Cummins
Model 6.7
Serial No.

Capacity: 18.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Fuel dilution at problem level. Silicon level (dirt/sealant material) satisfactory. Water content satisfactory. Viscosity low for specified oil grade. Action: Check fueling system. As oil and filter(s) already changed, resample at a reduced service interval to further monitor.

ANALYST: aaron.cotton

	LEGEND			
Abnormal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	17-May-24	09-Jan-24	01-Sep-23	24-May-23	12-Jan-23	12-Jul-22
DATE RECEIVED	01-Jul-24	13-Feb-24	20-Sep-23	05-Jun-23	01-Feb-23	15-Aug-22
DATE REPORTED	02-Jul-24	14-Feb-24	22-Sep-23	07-Jun-23	03-Feb-23	16-Aug-22

LAB NO.	44023376812	44023253082	44023128376	44023033924	44022929708	44022798281
SIF NO.	702897558	702897510	701689916	701689977	700592815	700592835
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400
OIL GRADE	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED	qt	16.0	16.0	16.0	16.0	16.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	14	16	13	17	15	13
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	<1	<1
Tin (Sn)	<1	<1	<1	2	<1	1
Aluminium (Al)	2	4	2	3	2	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	4	5	6	5	5	4
Sodium (Na)	2	3	3	5	<1	4
Potassium (K)	3	6	3	3	2	4

Additives (ppm)						
Magnesium (Mg)	431	810	791	772	729	712
Calcium (Ca)	1705	1263	1453	1357	1370	1389
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	784	714	758	703	774	680
Zinc (Zn)	974	856	835	828	883	809
Molybdenum (Mo)	6	4	3	4	7	13
Boron (B)	26	48	45	49	53	54

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

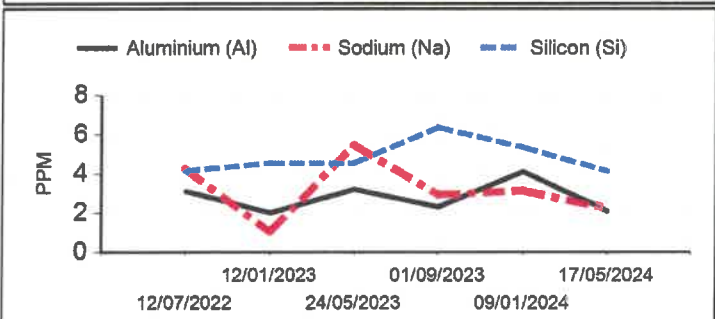
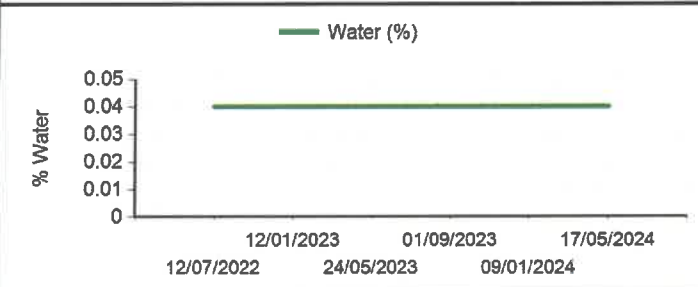
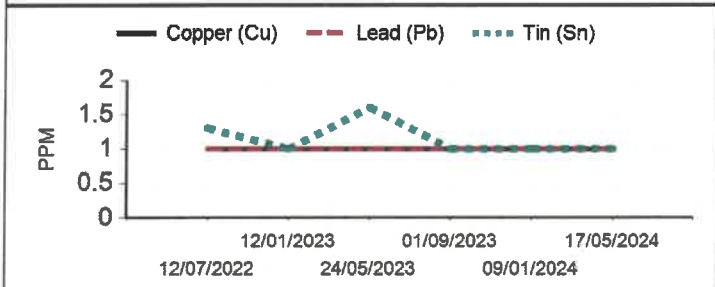
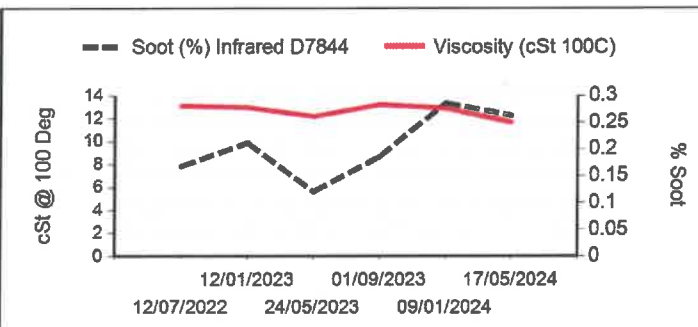
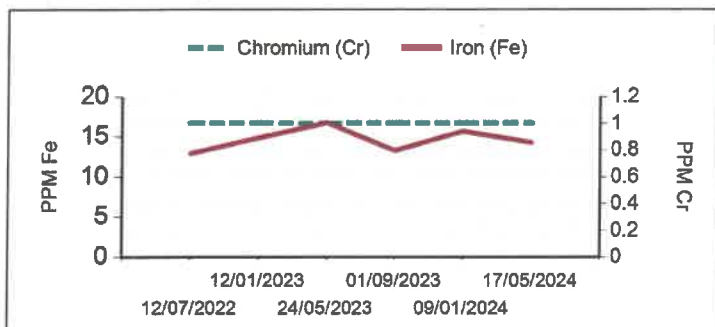
Physical Tests						
Viscosity (cSt 100C)	11.6	12.9	13.2	12.2	12.9	13.1
Fuel (%)	5.2	1.60	<1	3.30	<1	<1
PQ Index	10	10	<10	19	<10	<10
Soot (%) Infrared D7844	0.3	0.3	0.2	0.1	0.2	0.2



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UIN 073BD60



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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6180 Halle Dr. Suite D
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800.726.5400
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800.332.8055
 - Phoenix, Arizona - 440**
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Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 073BD61

Transmission

Unit No. 1801

Unit:
Make Freightliner
Model
Serial No. 4UZADRFDXKCKY3513

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	17-May-24	09-Jan-24	01-Sep-23	24-May-23	12-Jan-23	12-Jul-22
DATE RECEIVED	01-Jul-24	13-Feb-24	20-Sep-23	05-Jun-23	01-Feb-23	15-Aug-22
DATE REPORTED	02-Jul-24	14-Feb-24	22-Sep-23	08-Jun-23	03-Feb-23	16-Aug-22
LAB NO.	44023376811	44023253083	44023128377	44023033925	44022929709	44022798273
SIF NO.	702897557	702897509	701689917	701689976	700592816	700592827
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0	8.0	8.0		
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Changed	Not Changed	
WO NUMBER						
Metals (ppm)						
Iron (Fe)	31	36	37	39	27	27
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	2	3	4	4	4
Copper (Cu)	7	8	12	16	12	13
Tin (Sn)	<1	<1	<1	1	<1	<1
Aluminium (Al)	3	3	4	4	2	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	4	6	5	4	5
Sodium (Na)	1	2	1	<1	<1	3
Potassium (K)	<1	<1	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	23	36	36	42	35	31
Calcium (Ca)	83	107	130	106	85	105
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	220	240	237	253	245	245
Zinc (Zn)	35	50	51	62	60	61
Molybdenum (Mo)	1	1	2	2	2	2
Boron (B)	85	86	88	89	69	80
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.4	6.5	6.4	6.6	6.8	6.7
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	67	14	10	<10	87	<10



ANALYST: roldan.beldad

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 073BD61

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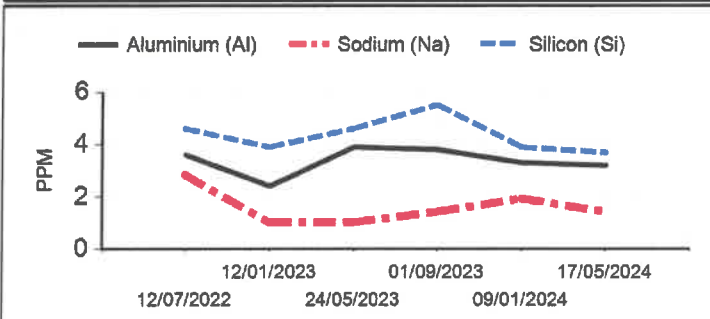
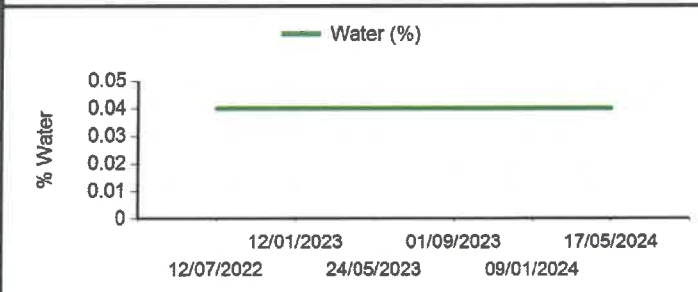
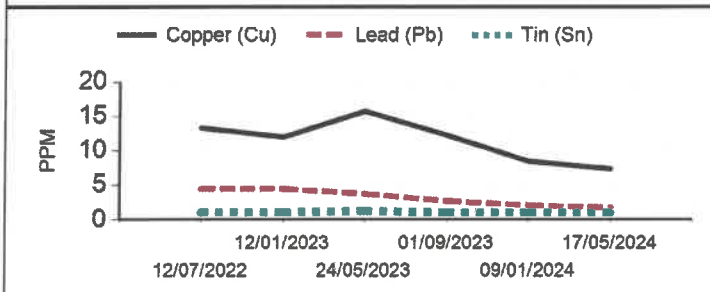
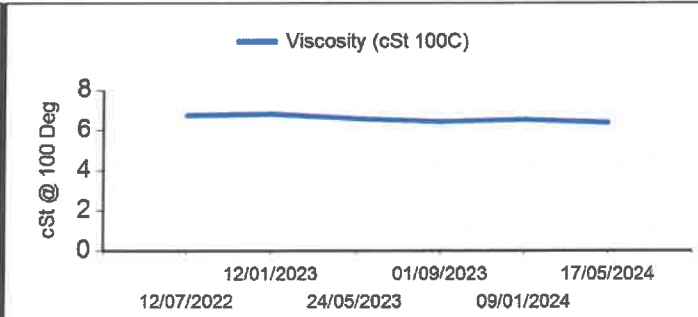
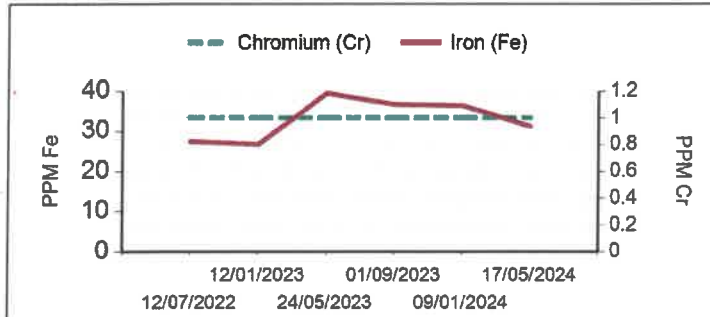
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 065F352

Transmission

Unit No. 1712

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRFD3JCJT5539

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

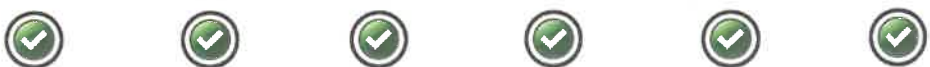
DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

	09-May-24	09-Jan-24	23-Mar-23	24-Oct-22	14-Jul-22	24-Mar-22
DATE SAMPLED	09-May-24	09-Jan-24	23-Mar-23	24-Oct-22	14-Jul-22	24-Mar-22
DATE RECEIVED	15-May-24	17-Jan-24	30-Mar-23	31-Oct-22	15-Aug-22	04-May-22
DATE REPORTED	16-May-24	19-Jan-24	05-Apr-23	02-Nov-22	16-Aug-22	05-May-22
LAB NO.	44023335669	44023229559	44022978405	44022856767	44022798280	44022722129
SIF NO.	702897560	702897525	701689924	700592852	700592832	39776157
TIME ON UNIT	mi					15000
TIME ON OIL	mi					Unidentified
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	8.0				
FILTER	mi	Not Applicable				
OIL CHANGED		Not Changed	Changed	Not Changed	Not Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	18	15	20	23	12	18
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	2	<1	2	<1	<1	1
Copper (Cu)	8	7	10	12	7	8
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	1	1	2	2	2	3
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	3	4	5	5	4	5
Sodium (Na)	<1	<1	<1	2	2	4
Potassium (K)	<1	<1	<1	1	<1	<1
Additives (ppm)						
Magnesium (Mg)	25	36	46	40	40	34
Calcium (Ca)	101	126	140	85	91	107
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	226	215	253	239	238	268
Zinc (Zn)	35	46	59	60	60	67
Molybdenum (Mo)	1	1	2	3	2	5
Boron (B)	81	81	91	84	83	86
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	6.7	6.5	6.6	6.9	7.1	6.9
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	<10	<10	<10	<10	<10	11



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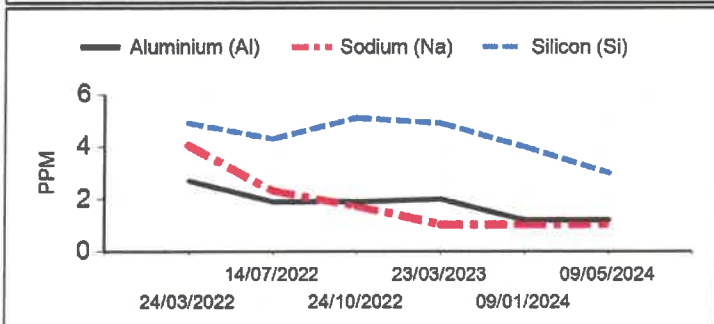
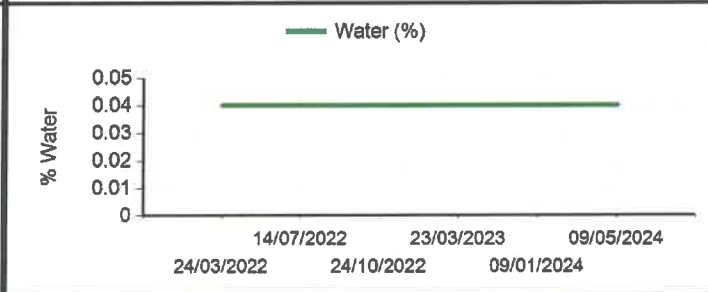
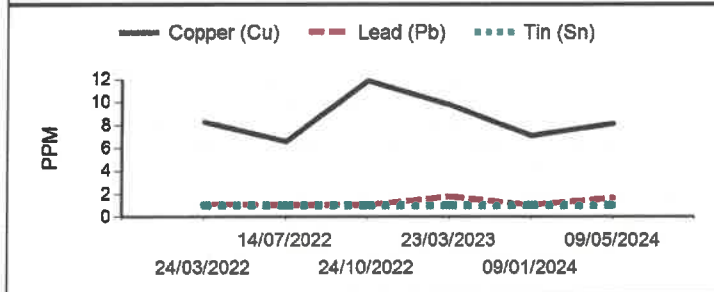
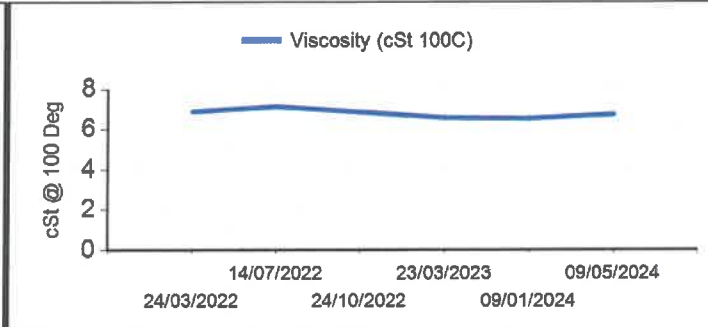
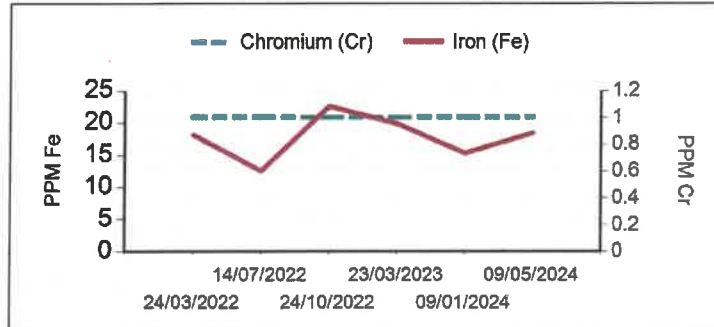
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 092B870

Transmission

Unit No. 2103

Unit:
Make Freightliner
Model S2
Serial No. 4UZADRF0NCNE1312

Site

Compartment:
Name Transmission
Make
Model
Serial No. 4UZADRF0NCNE1312
Capacity: 16.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next service interval to further monitor.

DATE SAMPLED	11-Mar-24	30-Oct-23	11-Jul-23	12-Oct-22	11-Jul-22	28-Feb-22
DATE RECEIVED	25-Mar-24	08-Nov-23	29-Aug-23	31-Oct-22	19-Jul-22	20-Apr-22
DATE REPORTED	26-Mar-24	10-Nov-23	30-Aug-23	02-Nov-22	21-Jul-22	22-Apr-22

LAB NO.	44023289190	44023169870	44023107500	44022856769	44022779396	44022710221
SIF NO.	702897579	701689947	701689901	700592856	39776249	39776162
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND	Allison	Allison	Allison	Allison	Allison	Allison
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt	8.0	8.0	8.0	-	8.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	30	36	39	38	40	35
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	3	3	6	10	13	10
Copper (Cu)	8	8	11	19	23	22
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	4	4	4	5	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	<1	3	4	4	4	4
Sodium (Na)	2	2	2	6	6	7
Potassium (K)	<1	<1	2	3	3	3

Additives (ppm)						
Magnesium (Mg)	26	31	33	20	1	7
Calcium (Ca)	110	123	124	78	60	75
Barium (Ba)	<1	<1	<1	<1	1	1
Phosphorus (P)	236	214	242	258	223	259
Zinc (Zn)	36	39	42	32	7	13
Molybdenum (Mo)	<1	<1	<1	1	<1	<1
Boron (B)	74	75	80	89	86	98

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	6.7	6.7	6.7	6.8	6.8	6.8
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	14	14	14	12	16	31

ANALYST: Sam Smith Phoenix

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

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6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055

Phoenix, Arizona - 440
3319 West Earll Drive
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800.445.7930

Portland, Oregon - 401

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800.770.4128

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Burlington, Ontario - 450
5036 South Service Rd.
Burlington, ON L7L5Y7
905 332 9559

Edmonton, Alberta - 402
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

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10450 Stanciliff Road, Suite 210
Houston, TX 77099
877.835.8437

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South America

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

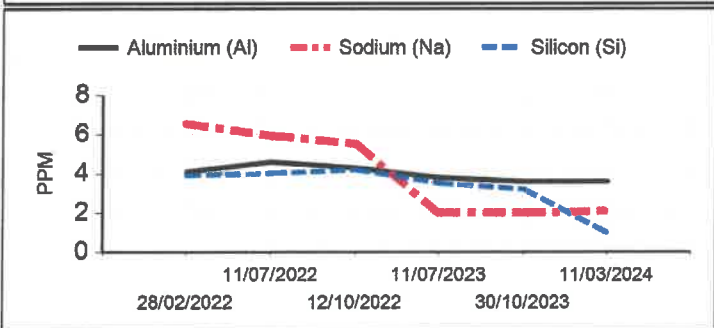
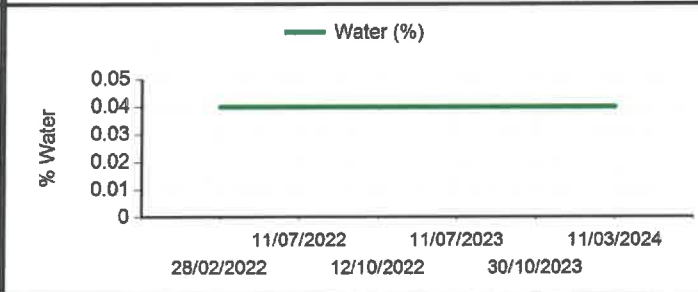
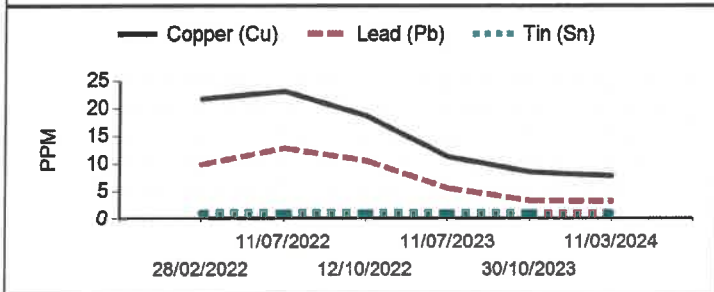
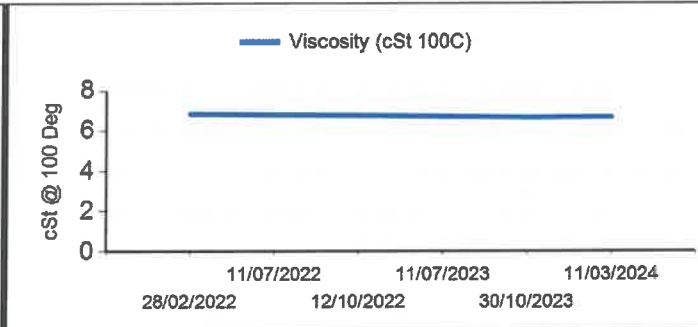
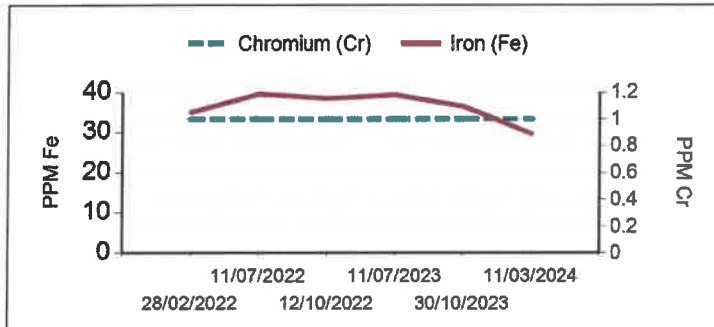
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E9276

Gasoline Engine

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:
Name Gasoline Engine

Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

DATE SAMPLED	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22	01-Sep-22	02-May-22
DATE RECEIVED	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23	15-Sep-22	26-May-22
DATE REPORTED	25-Mar-24	22-Sep-23	26-May-23	20-Jan-23	19-Sep-22	28-May-22

LAB NO.	44023289158	44023128374	44023023690	44022918310	44022821203	44022740941
SIF NO.	702897582	701689914	701689969	700592868	700592857	39776185
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	12	15	16	10	10	14
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	2	2	2	2	1
Tin (Sn)	<1	<1	<1	<1	2	<1
Aluminium (Al)	4	4	2	3	3	1
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	14	25	14	13	15	20
Sodium (Na)	6	5	3	5	5	4
Potassium (K)	<1	1	<1	2	2	1

Additives (ppm)						
Magnesium (Mg)	534	516	476	451	439	544
Calcium (Ca)	1580	1600	1306	1307	1193	1502
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	767	725	648	602	593	692
Zinc (Zn)	949	861	794	736	722	857
Molybdenum (Mo)	315	309	286	268	254	306
Boron (B)	21	25	21	32	25	50

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.3	8.7	8.3	7.7	8.0	7.7
PQ Index	<10	<10	<10	<10	<10	10



ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 07E9276

U.S. Laboratories

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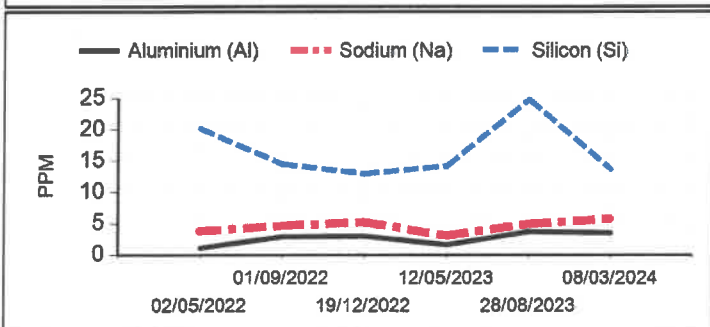
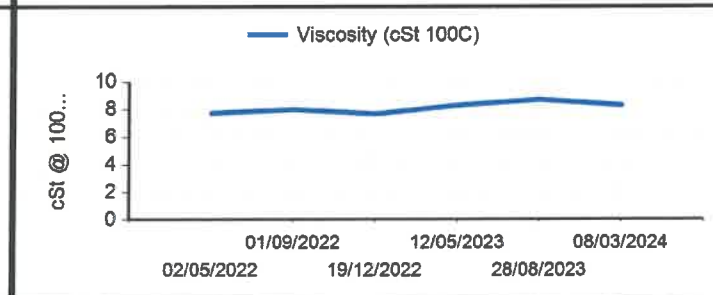
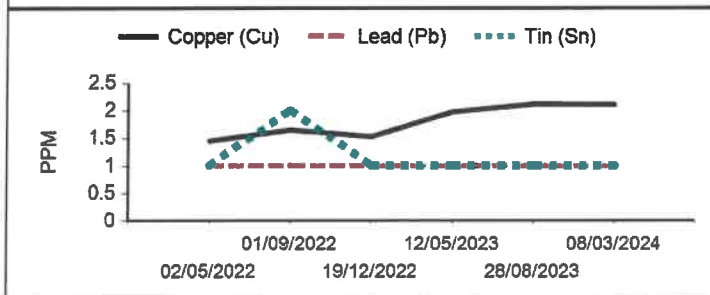
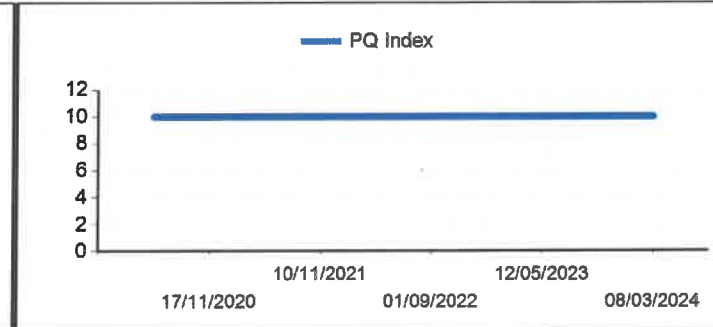
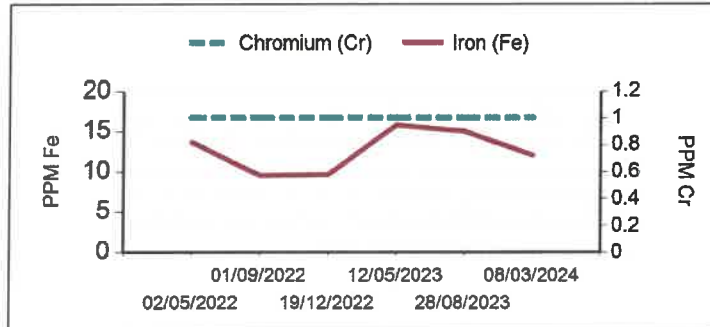
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 07E9277

Transmission

Unit No. 1901

Unit:
Make Ford
Model 350
Serial No. 1FBZXZCM9JKB31600

Site

Compartment:
Name Transmission
Make
Model
Serial No.

Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	08-Mar-24	28-Aug-23	12-May-23	19-Dec-22	01-Sep-22	02-May-22
DATE RECEIVED	25-Mar-24	20-Sep-23	23-May-23	19-Jan-23	15-Sep-22	15-Jun-22
DATE REPORTED	26-Mar-24	25-Sep-23	26-May-23	20-Jan-23	16-Sep-22	16-Jun-22

LAB NO.	44023289159	44023128375	44023023691	44022918311	44022821204	44022754393
SIF NO.	702897581	701689915	701689968	700592867	700592863	39776172
TIME ON UNIT						
TIME ON OIL						
OIL BRAND	Unidentified	Unidentified	Unidentified	Chevron	Chevron	Chevron
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt 3.0	3.0	3.0	3.0	3.0	3.0
FILTER	Not Applicable					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	49	60	53	57	51	87
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	8	10	9	10	11	18
Tin (Sn)	<1	<1	<1	<1	2	<1
Aluminium (Al)	19	21	17	16	16	24
Nickel (Ni)	2	2	2	2	2	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

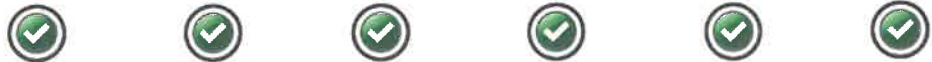
Contaminants (ppm)						
Silicon (Si)	<1	7	5	6	5	7
Sodium (Na)	2	2	2	5	3	5
Potassium (K)	<1	<1	<1	2	2	1

Additives (ppm)						
Magnesium (Mg)	2	2	2	2	4	3
Calcium (Ca)	130	139	121	118	102	104
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	191	189	171	166	159	170
Zinc (Zn)	4	4	4	5	6	6
Molybdenum (Mo)	2	2	2	3	4	5
Boron (B)	61	72	64	62	60	59

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	6.0	5.9	5.6	5.8	5.7
Solids (%)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	14	14	15	11	13	30



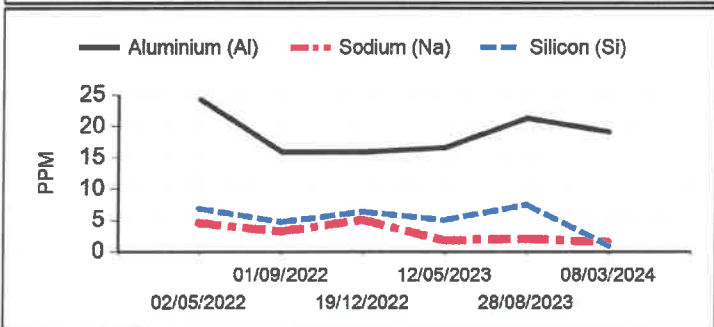
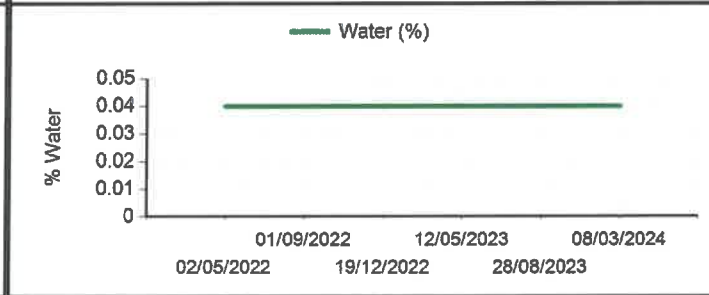
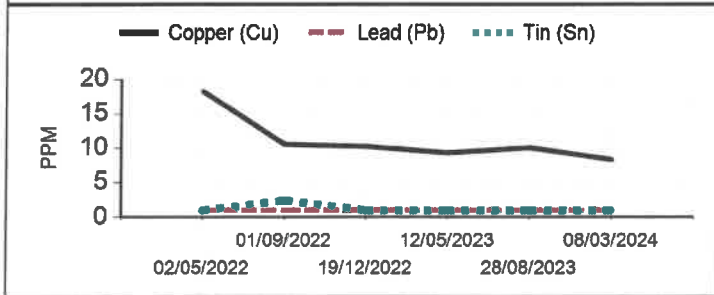
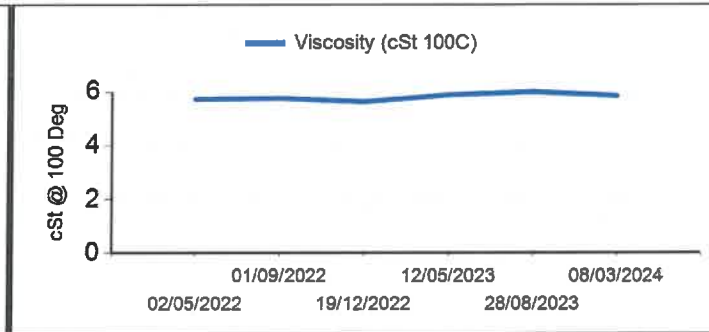
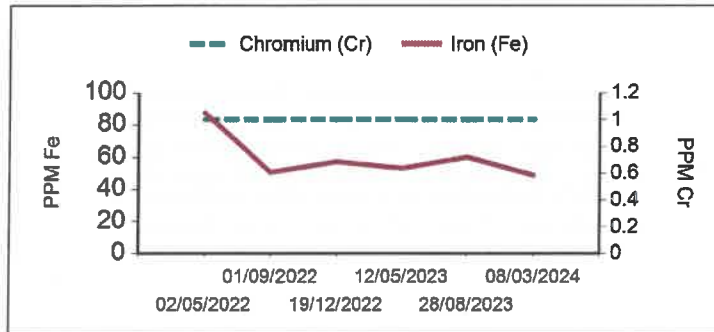
ANALYST: Stan.Leitz

	LEGEND			
Normal	Severe	Abnormal	Caution	Normal

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UIN 07E9277



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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Southeast Asia

Kuala Lumpur, Singapore

Europe

Prague

TEST METHODS:

- Acid Number: ASTM D974/D664 (*M)
- Base Number: ASTM D4739 (*M)
- Base Number (Perchloric): ASTM D2896B, back (*M)
- Fuel Dilution by GC: ASTM D7593
- Fuel Dilution Visc/Setaflash: In House
- Fuel Soot ATR/IR: ASTM D7686 (*M)
- Soot by FTIR: ASTM D7844
- Glycol: In House
- Metals by ICP AES: ASTM D5185 (*M)
- Ox, NOx, SOx, FTIR: ASTM E2412/D7418/D7414 D7415
- PQ Index: ASTM D8120 (*M)
- Particle Count: ASTM D7647 (*M) / ISO 4406
- Kinematic Viscosity: ASTM D445 (*M) / D7279 (*M)
- Water KF: D6304 / E203 (*M)
- Water Crackle: In House

*M - Modified Method



UIN 081ABA1

Transmission

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:
Name Transmission
Make
Model
Serial No.
Capacity: 8.0

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

The higher than normal Aluminum level may indicate abnormal Torque-converter wear. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Advise carry out transmission performance pressure checks. Sample form indicates oil changed at time of sampling. Resample after corrective action to further monitor.

ANALYST: Stan.Leitz

LEGEND				
Severe	Severe	Abnormal	Caution	Normal

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DATE SAMPLED	07-Mar-24	09-Oct-23	25-May-23	18-Jan-23	03-Aug-22	07-Mar-22
DATE RECEIVED	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23	15-Aug-22	20-Apr-22
DATE REPORTED	26-Mar-24	23-Oct-23	08-Jun-23	03-Feb-23	16-Aug-22	22-Apr-22

LAB NO.	44023289157	44023153375	44023033927	44022929711	44022798275	44022710214
SIF NO.	702897584	701689938	701689979	700592813	700592828	39776164
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	3.0			3.0		3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed		Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	90	102	77	47	37	47
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	11	11	10	9	12	15
Tin (Sn)	4	3	3	2	2	1
Aluminium (Al)	87	82	55	29	17	20
Nickel (Ni)	3	4	5	4	2	2
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	5	12	9	5	5	5
Sodium (Na)	2	<1	1	<1	3	3
Potassium (K)	<1	2	<1	<1	<1	1

Additives (ppm)						
Magnesium (Mg)	3	4	5	3	6	3
Calcium (Ca)	133	127	133	121	129	122
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	198	194	176	183	179	178
Zinc (Zn)	6	7	7	5	10	9
Molybdenum (Mo)	2	2	3	2	4	6
Boron (B)	58	72	64	51	59	61

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.8	5.8	5.8	5.8
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

Additional						
PQ Index	16	12	12	12	12	20



UIN 081ABA1

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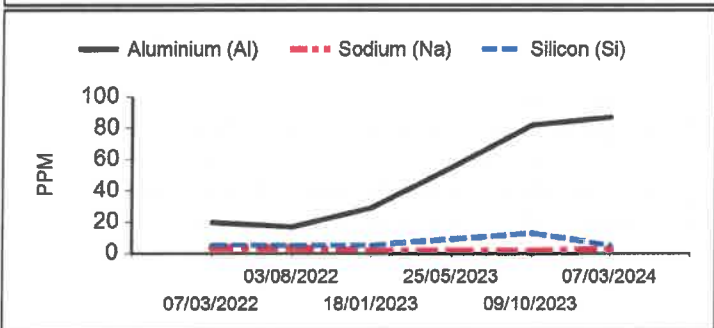
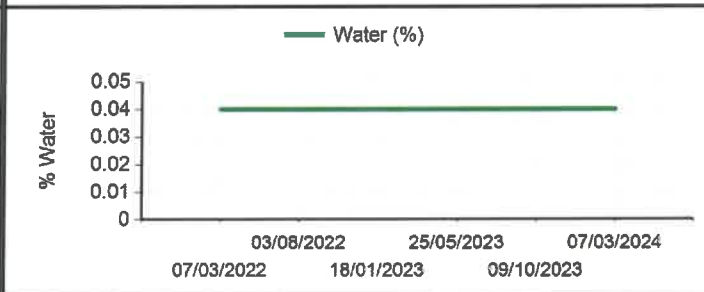
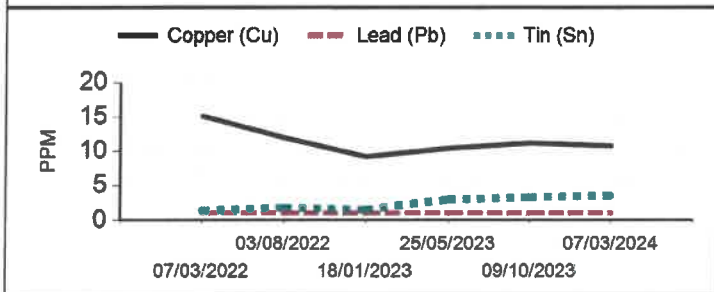
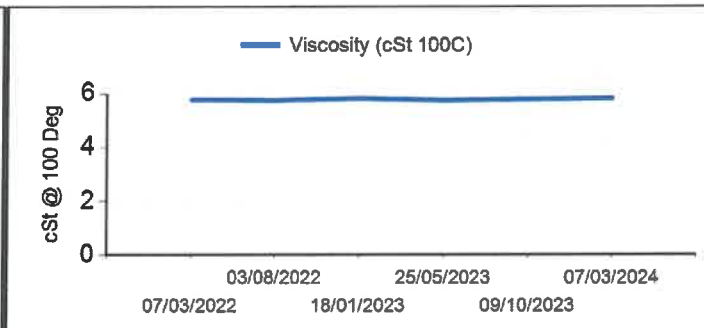
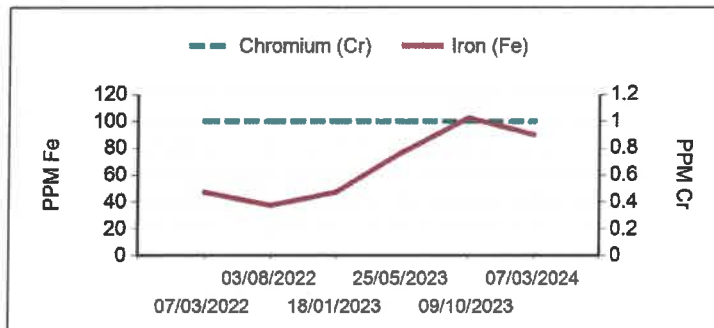
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 086A56A

Transmission

Unit No. 1902

Unit:
Make Ford Transit Van
Model .
Serial No. 1FDES6PM2JKB43562

Site

Compartment:

Name Transmission

Make

Model

Serial No.

Capacity: 12.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Please provide missing oil information; we need manufacturer, type, and grade to evaluate the oil data. Action: As oil already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23	29-Sep-22	02-Aug-21
DATE RECEIVED	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23	14-Oct-22	25-Aug-21
DATE REPORTED	26-Mar-24	10-Nov-23	27-Jun-23	20-Jan-23	17-Oct-22	27-Aug-21

LAB NO.	44023289152	44023169868	43021792840	44022918315	44022843563	44022543884
SIF NO.	702897588	701689945	701689896	700592872	700592881	38635072
TIME ON UNIT	mi					
TIME ON OIL	mi					10000
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
OIL ADDED	qt	3.0	3.0	3.0	3.0	3.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	79	65	59	55	63	74
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	1	<1
Copper (Cu)	13	11	12	15	17	26
Tin (Sn)	2	1	<1	<1	<1	2
Aluminium (Al)	46	25	20	20	20	29
Nickel (Ni)	2	2	2	2	3	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	<1	6	6	5	7	6
Sodium (Na)	3	2	3	6	1	5
Potassium (K)	<1	<1	<1	2	1	<1

Additives (ppm)						
Magnesium (Mg)	1	3	6	2	2	1
Calcium (Ca)	143	118	162	128	132	126
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	211	183	212	200	215	177
Zinc (Zn)	10	5	18	5	5	6
Molybdenum (Mo)	3	3	5	5	6	10
Boron (B)	62	65	83	77	97	61

Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Physical Tests						
Viscosity (cSt 100C)	5.8	5.8	5.8	5.7	5.6	5.7
Solids (%)	<0.1	<0.1	<0.1	<0.1	<0.1	0.1

Additional						
PQ Index	17	21	14	<10	13	20



ANALYST: Stan.Leitz

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

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UIN 086A56A

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 Valley View, OH 44125
 800.726.5400

Kansas City, Kansas - 430
 935 Sunshine Road
 Kansas City, KS 66115
 800.332.8055

Phoenix, Arizona - 440
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Portland, Oregon - 401

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 905 332 9559

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 Houston, TX 77099
 877.835.8437

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South America

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New Zealand

Wellington

Southeast Asia

Kuala Lumpur, Singapore

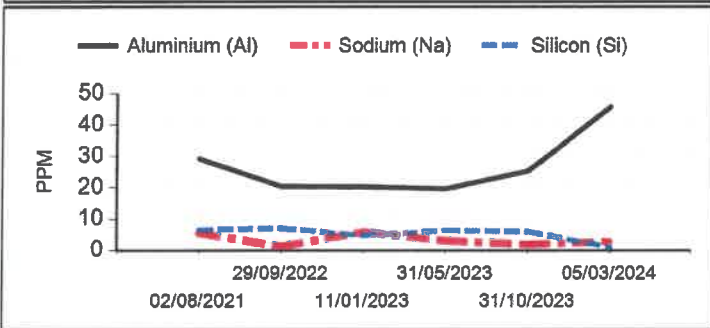
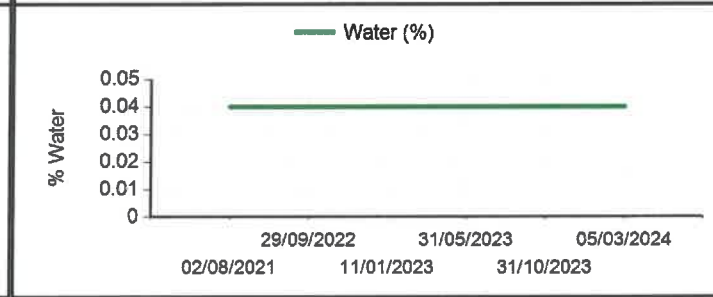
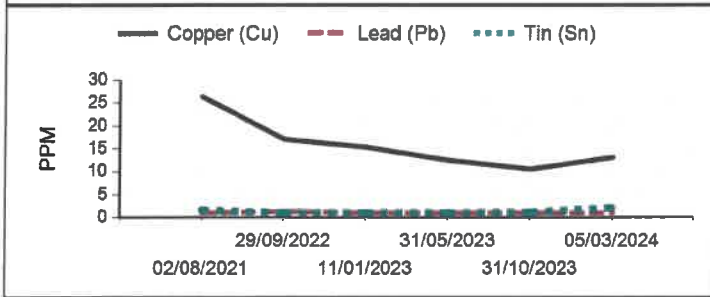
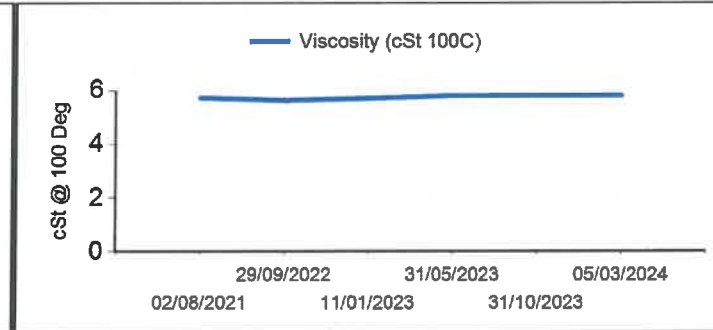
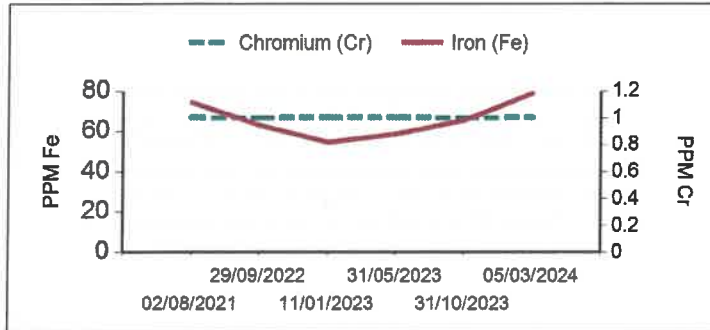
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.



0002 v1.9



UIN 07E92A3

Gasoline Engine

Unit No. 1902

Unit:
Make Ford Transit Van
Model .
Serial No. 1FDES6PM2JKB43562

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.

Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

LEGEND				
Normal	Severe	Abnormal	Caution	Normal

DATE SAMPLED	05-Mar-24	31-Oct-23	31-May-23	11-Jan-23	29-Sep-22	02-Aug-21
DATE RECEIVED	25-Mar-24	08-Nov-23	23-Jun-23	19-Jan-23	14-Oct-22	25-Aug-21
DATE REPORTED	25-Mar-24	10-Nov-23	24-Jun-23	20-Jan-23	17-Oct-22	26-Aug-21

LAB NO.	44023289153	44023169867	43021792839	44022918314	44022843562	44022543886
SIF NO.	702897587	701689944	701689897	700592875	700592882	38635074
TIME ON UNIT	mi					
TIME ON OIL	mi					6000
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED	Changed	Changed	Changed	Not Changed	Not Changed	Changed
WO NUMBER						

Metals (ppm)						
Iron (Fe)	9	23	10	13	25	11
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	1
Copper (Cu)	8	19	16	36	45	2
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	6	3	7	17	7
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	2	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1

Contaminants (ppm)						
Silicon (Si)	8	24	12	21	38	27
Sodium (Na)	5	7	7	6	5	9
Potassium (K)	<1	2	<1	3	3	<1

Additives (ppm)						
Magnesium (Mg)	545	454	573	644	274	530
Calcium (Ca)	1542	1366	1671	1101	1494	1466
Barium (Ba)	<1	<1	<1	2	13	<1
Phosphorus (P)	748	647	777	548	670	743
Zinc (Zn)	928	806	968	655	741	886
Molybdenum (Mo)	319	266	330	54	124	207
Boron (B)	17	19	33	47	216	22

Contaminants						
Water (%)	<0.05	0.11	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No

Physical Tests						
Viscosity (cSt 100C)	8.2	10.5	8.1	8.0	7.6	8.8
PQ Index	10	11	<10	<10	<10	<10





UIN 07E92A3

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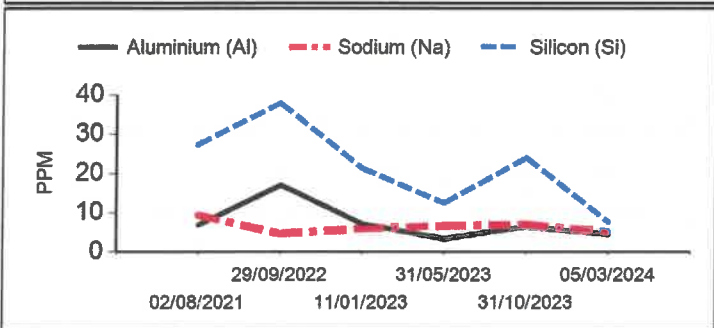
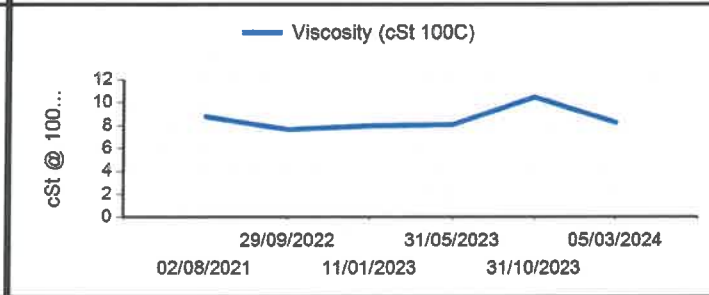
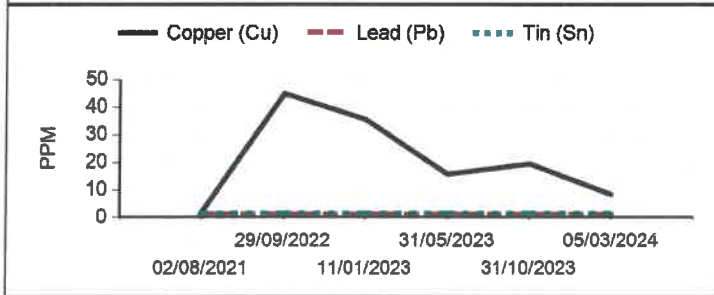
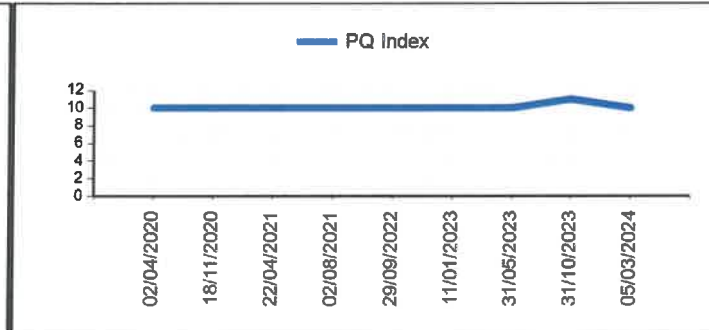
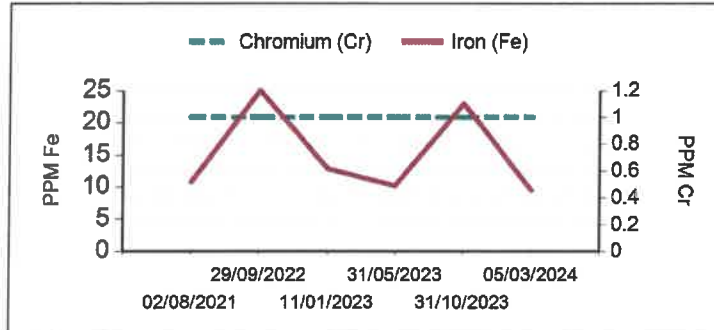
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9



UIN 07CB197

Gasoline Engine

Unit No. 1903

Unit:
Make Ford
Model Transit
Serial No. 1FDRS8PM6HKB51736

Site

Compartment:

Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next service interval to further monitor.

ANALYST: Sam Smith Phoenix

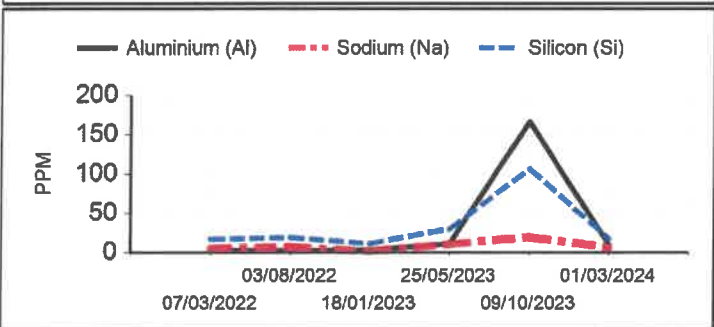
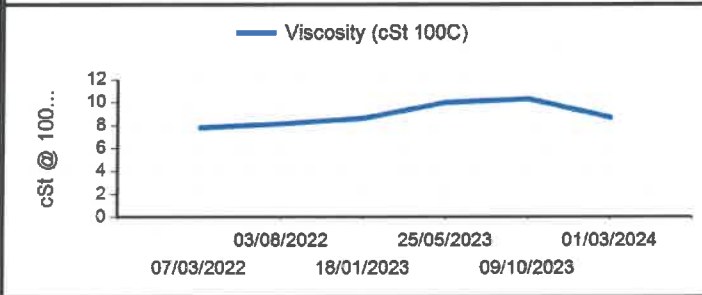
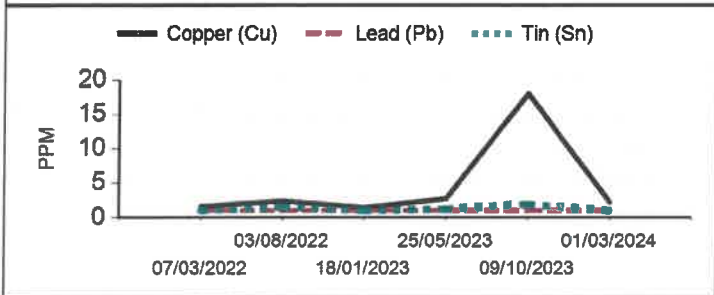
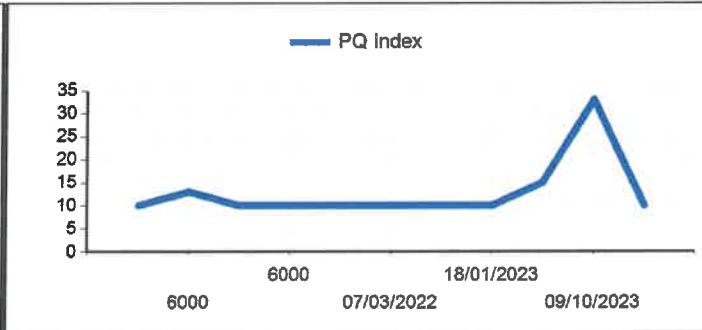
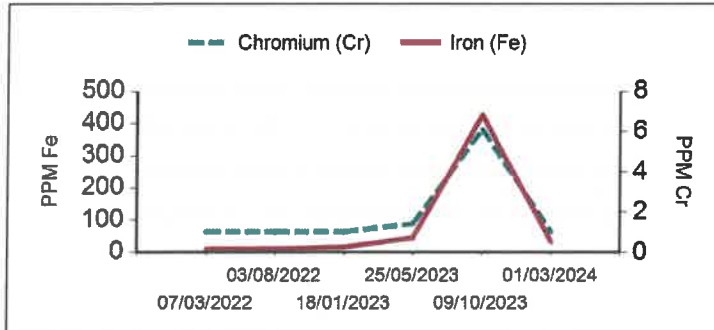
LEGEND				
Normal	Severe	Abnormal	Caution	Normal

Right Solutions • Right Partner

DATE SAMPLED	01-Mar-24	09-Oct-23	25-May-23	18-Jan-23	03-Aug-22	07-Mar-22
DATE RECEIVED	25-Mar-24	20-Oct-23	05-Jun-23	01-Feb-23	15-Aug-22	20-Apr-22
DATE REPORTED	25-Mar-24	23-Oct-23	14-Jun-23	03-Feb-23	16-Aug-22	24-Apr-22
LAB NO.	44023289156	44023153376	44023033926	44022929710	44022798282	44022710213
SIF NO.	702897583	701689939	701689978	700592814	700592830	39776163
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Chevron	Chevron	Chevron	Chevron	Chevron	Chevron
OIL TYPE	Havoline ProDS Full	Havoline ProDS Full	Havoline ProDS	Havoline ProDS Full	Havoline ProDS	Havoline ProDS
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED	6.0			6.0		6.0
FILTER	qt					
OIL CHANGED	mi					
WO NUMBER	Changed	Changed	Changed	Changed		Changed
Metals (ppm)						
Iron (Fe)	31	426	44	15	10	9
Chromium (Cr)	<1	6	1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	18	3	1	2	2
Tin (Sn)	<1	2	1	<1	2	<1
Aluminium (Al)	10	166	11	3	2	3
Nickel (Ni)	<1	4	1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	17	106	29	11	19	16
Sodium (Na)	6	18	10	<1	7	5
Potassium (K)	1	3	<1	<1	<1	<1
Additives (ppm)						
Magnesium (Mg)	552	577	541	440	516	512
Calcium (Ca)	1648	1611	1523	1232	1471	1424
Barium (Ba)	<1	19	<1	<1	<1	<1
Phosphorus (P)	786	799	702	680	684	731
Zinc (Zn)	981	975	869	817	842	866
Molybdenum (Mo)	326	328	308	180	298	300
Boron (B)	15	22	17	20	23	50
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	8.7	10.3	10.0	8.6	8.2	7.8
PQ Index	<10	33	15	<10	<10	10



UIN 07CB197



Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.



0002 v1.9

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6180 Halle Dr. Suite D
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877.835.8437

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- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 06267FD

Transmission

Unit No. 1701

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F50HDC33551

Site

Compartment:
Name Transmission

Make
Model
Serial No.

Capacity: 17.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil already changed, resample next recommended service interval to further monitor.

ANALYST: Stan.Leitz

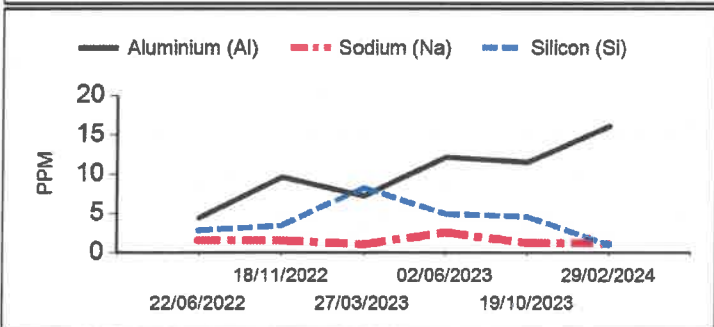
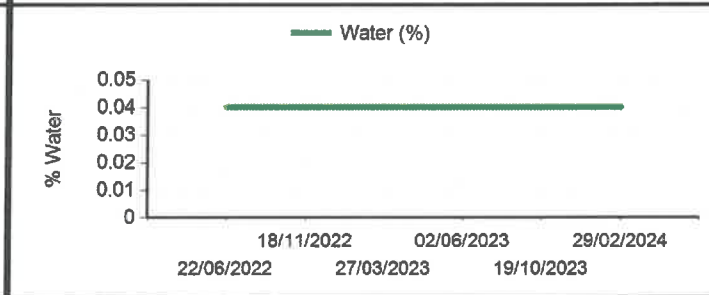
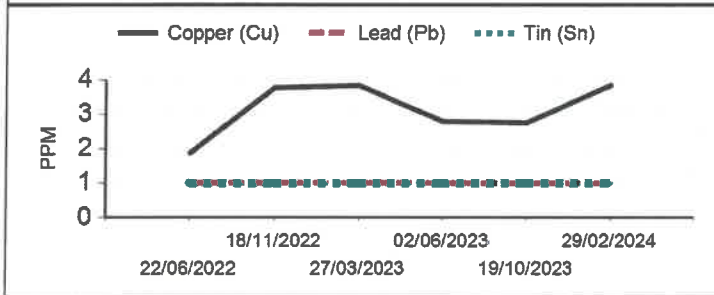
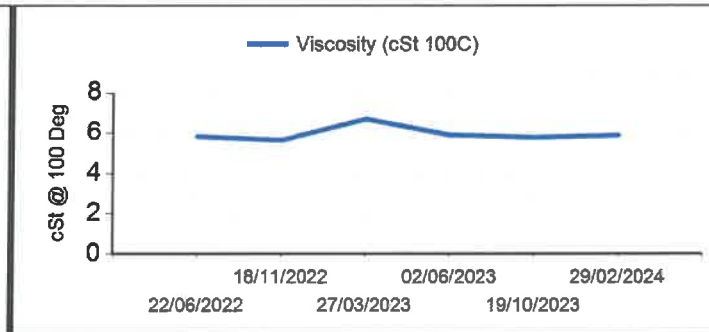
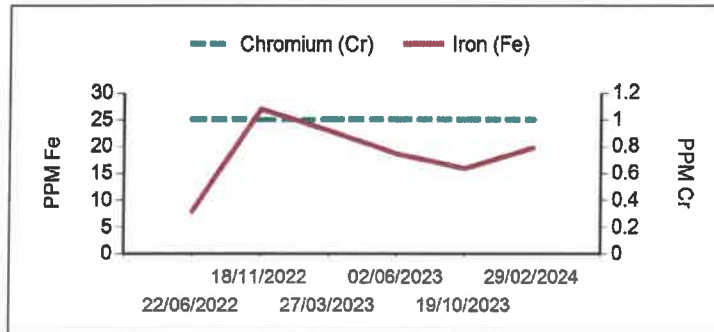
	LEGEND			
Normal				
	Severe	Abnormal	Caution	Normal

DATE SAMPLED	29-Feb-24	19-Oct-23	02-Jun-23	27-Mar-23	18-Nov-22	22-Jun-22
DATE RECEIVED	25-Mar-24	08-Nov-23	23-Jun-23	30-Mar-23	29-Dec-22	19-Jul-22
DATE REPORTED	26-Mar-24	10-Nov-23	27-Jun-23	05-Apr-23	30-Dec-22	21-Jul-22
LAB NO.	44023289155	44023169866	43021792844	44022978407	44022901462	44022779404
SIF NO.	702897586	701689940	701689893	701689928	700592822	39776245
TIME ON UNIT	mi					
TIME ON OIL	mi					
OIL BRAND	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified	Unidentified
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	ATF	ATF	ATF	ATF	ATF	ATF
OIL ADDED	qt	6.0	6.0		6.0	6.0
FILTER	mi	Not Applicable				
OIL CHANGED		Changed	Changed	Not Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	20	16	19	23	27	8
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	4	3	3	4	4	2
Tin (Sn)	1	<1	<1	<1	1	<1
Aluminium (Al)	16	12	12	7	10	4
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	<1	5	5	8	3	3
Sodium (Na)	1	1	2	<1	2	2
Potassium (K)	<1	<1	<1	<1	2	<1
Additives (ppm)						
Magnesium (Mg)	3	3	10	5	6	6
Calcium (Ca)	135	120	172	126	138	133
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	210	190	216	212	221	207
Zinc (Zn)	6	6	20	15	16	9
Molybdenum (Mo)	1	1	5	2	2	2
Boron (B)	67	70	86	76	72	73
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Physical Tests						
Viscosity (cSt 100C)	5.9	5.8	5.9	6.7	5.7	5.8
Solids (%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Additional						
PQ Index	<10	12	<10	<10	13	10

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UIN 06267FD



Filter Image

Filter patch test is not performed Contact laboratory for more information

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0002 v1.9

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Valley View, OH 44125
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- New Zealand**
Wellington
- Southeast Asia**
Kuala Lumpur, Singapore
- Europe**
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



UIN 06267FC

Gasoline Engine

Unit No. 1701

Unit:
Make Ford
Model E-450
Serial No. 1FDFE4F50HDC33551

Site

Compartment:
Name Gasoline Engine
Make
Model
Serial No.
Capacity: 6.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

DATE SAMPLED	29-Feb-24	19-Oct-23	02-Jun-23	27-Mar-23	18-Nov-22	22-Jun-22
DATE RECEIVED	25-Mar-24	08-Nov-23	23-Jun-23	30-Mar-23	29-Dec-22	19-Jul-22
DATE REPORTED	26-Mar-24	10-Nov-23	27-Jun-23	04-Apr-23	30-Dec-22	21-Jul-22
LAB NO.	44023289154	44023169865	43021792843	44022978406	44022901461	44022779403
SIF NO.	702897585	701689941	701689892	701689929	700592821	39776243
TIME ON UNIT						
TIME ON OIL	mi					
OIL BRAND		Ford	Ford	Ford	Ford	Ford
OIL TYPE		Motorcraft	Motorcraft	Motorcraft	Motorcraft	Motorcraft
OIL GRADE		SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30	SAE 5W30
OIL ADDED	qt	6.0	6.0	6.0	6.0	6.0
FILTER	mi					
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	13	16	33	17	48	26
Chromium (Cr)	<1	<1	1	<1	3	1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	<1	<1	<1	<1	1	<1
Tin (Sn)	<1	<1	<1	<1	<1	<1
Aluminium (Al)	4	4	6	3	11	4
Nickel (Ni)	2	1	2	<1	3	1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	13	12	13	22	14
Sodium (Na)	12	7	19	10	35	10
Potassium (K)	1	1	<1	<1	5	3
Additives (ppm)						
Magnesium (Mg)	617	551	598	533	595	503
Calcium (Ca)	1523	1412	1741	1438	1713	1416
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	775	726	804	732	803	665
Zinc (Zn)	970	900	1035	857	987	827
Molybdenum (Mo)	327	289	336	302	344	289
Boron (B)	34	25	33	31	16	15
Contaminants						
Water (%)	<0.05	<0.05	<0.05	0.23	0.45	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.3	12.1	12.3	--	--	10.7
PQ Index	22	10	<10	43	10	<10

ANALYST: Stan.Leitz

LEGEND

Normal	Severe	Abnormal	Caution	Normal

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UIN 06267FC

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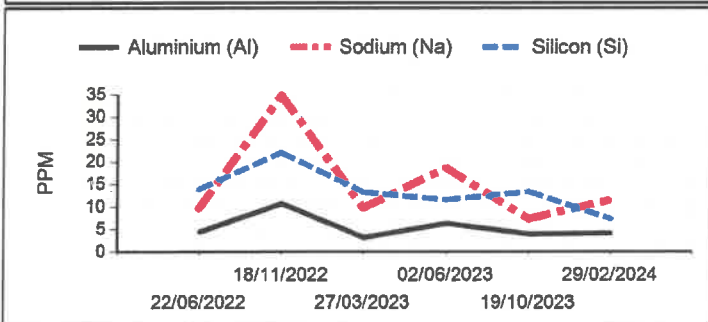
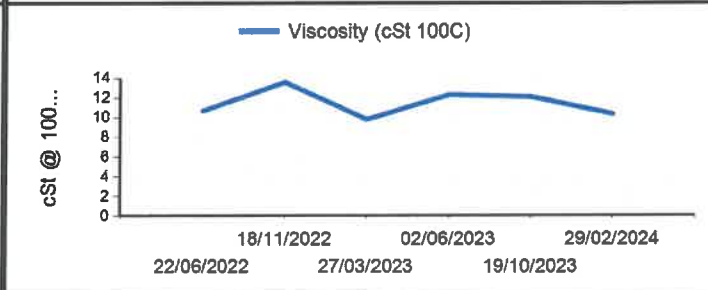
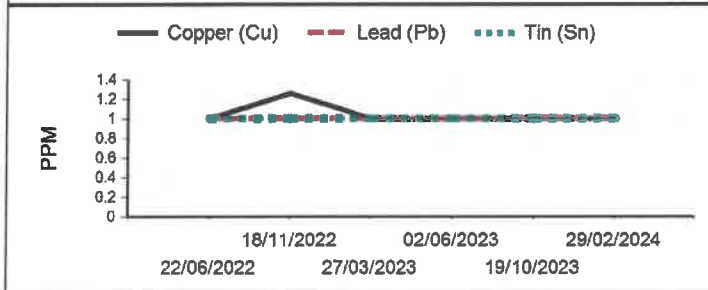
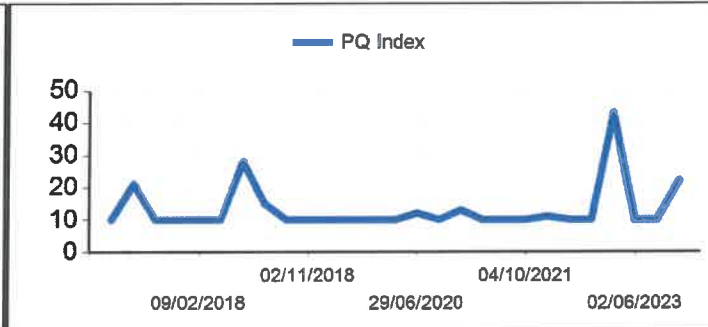
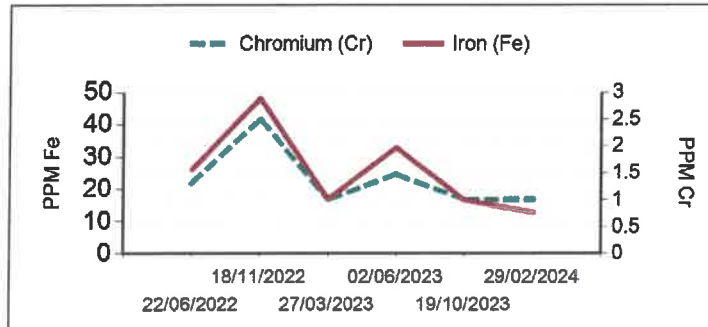
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

Filter patch test is not performed Contact laboratory for more information

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UIN 082147A

Transmission

Unit No. 1710

Unit:
Make
Model
Serial No. 57WMD2C61GM100432

Site MJ-CT/MV-1

Compartment:
Name Transmission

Make
Model
Serial No.
Capacity: 10.0 qt

Customer:
 PARATRANSIT SERVICES
 PO Box 698
 Lower Lake Ca 95457
 USA

DIAGNOSIS

All wear levels remain constant. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: Resample at a reduced service interval to further monitor.

	23-Feb-24	20-Oct-23	09-Feb-23	05-Aug-22	25-Jun-21	30-Mar-21
DATE SAMPLED	23-Feb-24	20-Oct-23	09-Feb-23	05-Aug-22	25-Jun-21	30-Mar-21
DATE RECEIVED	05-Mar-24	08-Nov-23	08-Mar-23	30-Aug-22	09-Aug-21	09-Apr-21
DATE REPORTED	06-Mar-24	10-Nov-23	13-Mar-23	01-Sep-22	11-Aug-21	13-Apr-21
LAB NO.	44023270767	44023169864	44022956871	44022810871	44022532669	44022450079
SIF NO.	702897532	701689943	700592804	700592789	38635078	37569302
TIME ON UNIT						
TIME ON OIL	mi				10000	12000
OIL BRAND	Ford	Ford	Ford	Ford	Ford	Ford
OIL TYPE	ATF	ATF	ATF	ATF	ATF	ATF
OIL GRADE	-	-	-	-	-	-
OIL ADDED	qt	3.0	3.0		3.0	
FILTER	mi					
OIL CHANGED	Not Changed	Changed	Changed	Not Changed	Changed	Not Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	79	75	82	64	125	114
Chromium (Cr)	<1	<1	<1	<1	<1	<1
Lead (Pb)	<1	<1	<1	2	<1	<1
Copper (Cu)	22	22	27	26	48	51
Tin (Sn)	2	2	1	2	2	3
Aluminium (Al)	51	47	49	40	65	58
Nickel (Ni)	3	2	3	2	4	4
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	<1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	7	7	11	6	9	9
Sodium (Na)	4	4	3	5	9	10
Potassium (K)	<1	<1	1	2	2	3
Additives (ppm)						
Magnesium (Mg)	5	2	4	4	1	2
Calcium (Ca)	152	118	131	136	109	117
Barium (Ba)	<1	<1	<1	<1	1	1
Phosphorus (P)	241	189	211	204	174	176
Zinc (Zn)	12	6	10	8	8	8
Molybdenum (Mo)	7	5	9	8	15	16
Boron (B)	76	66	75	69	51	49
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	5.7	5.7	5.7	5.7	5.5	5.8
PQ Index	21	22	15	22	29	31

ANALYST: paul.kittrick

LEGEND				
Abnormal	Severe	Abnormal	Caution	Normal

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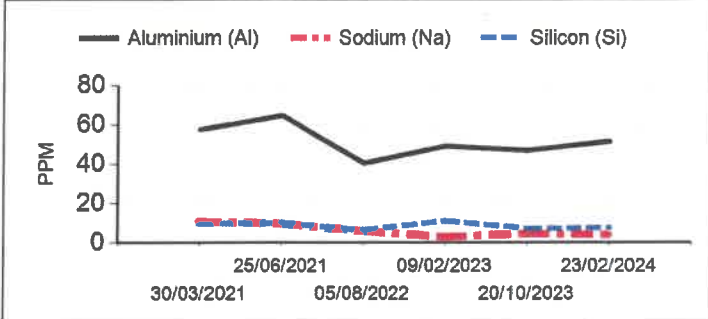
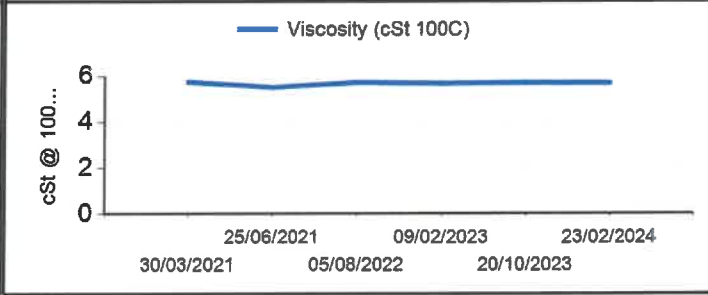
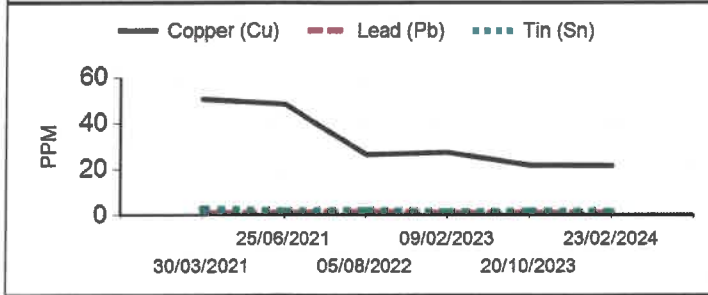
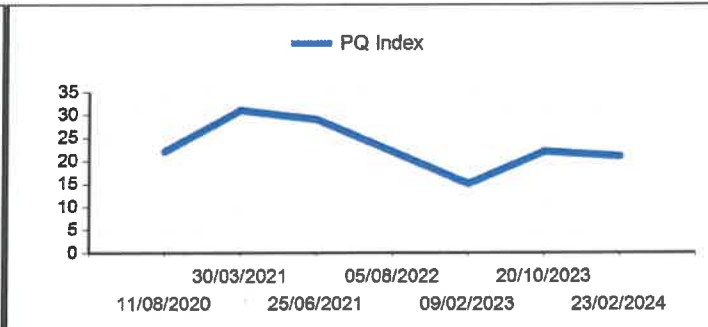
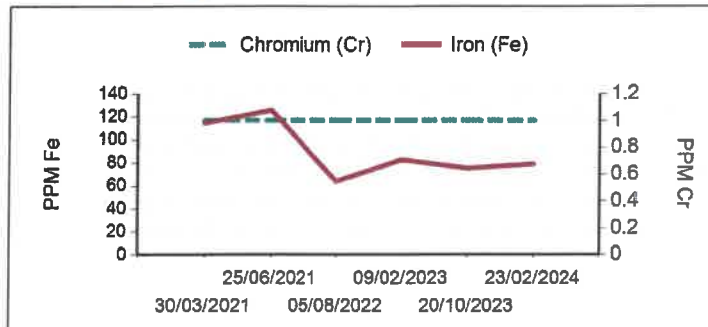
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
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PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter Image

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