

## CONTACT INFORMATION

BEN SMITH  
WHELANDS GROUP INVESTMENTS  
103 RUPERT ST  
BAIRNSDALE, VIC  
AUS 3875  
PHONE: 5152 2844  
FAX:  
Email: workshop@whelansgroup.com.au

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 8  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR.

LAB #

T010-49147-0419

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354	313
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
20-May-19	T010-49147-0419	Y	Y	7
26-Feb-19	T010-49064-0513	Y	Y	3
28-Jan-19	T010-49032-0408	Y	Y	0
20-Nov-18	T010-48327-0121	Y	Y	3

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

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## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 8  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR.

LAB #

T010-49147-0419

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354	313
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
20-May-19	T010-49147-0419	Y	Y	7
26-Feb-19	T010-49064-0513	Y	Y	3
28-Jan-19	T010-49032-0408	Y	Y	0
20-Nov-18	T010-48327-0121	Y	Y	3

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 8  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR.

LAB #

T010-49147-0419

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354	313
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
20-May-19	T010-49147-0419	Y	Y	7
26-Feb-19	T010-49064-0513	Y	Y	3
28-Jan-19	T010-49032-0408	Y	Y	0
20-Nov-18	T010-48327-0121	Y	Y	3

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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## EQUIPMENT

EQUIP NUM: TK45  
 SERIAL NUMBER: TK45\_WHELANS  
 MODEL : FFR500  
 MANUFACTURER : ISUZU  
 COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
 JOB SITE :  
 AREA:  
 REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
 COMP SERIAL NUM:  
 COMPARTMENT MODEL :  
 LABEL#:  
 SHOP JOB NUM :  
 SAMPLE TYPE: OIL  
 SAMPLE SHIP TIME (days) : 11  
 SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

## Action Required

FUEL TEST INDICATE FUEL DILUTION, ENSURE CORRECT COMPARTMENT CONDOITION, MONITOR THE COMPARTMENT OIL LEVEL,  
 RESAMPLE AT HALF THE RECOMMENDED INTERVAL.

LAB #

T010-50098-0316

## WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	Ba	B
27-Mar-20	T010-50098-0316	636251	10000	Y	Y	1	9	2	2	0	0	3	1	1	1	0	0	0	0	0	0	2250	860	1027	11	0	1
04-Dec-19	T010-49351-0221	627165	13165	Y	Y	1	12	2	2	<1	<1	4	2	2	3	<1	<1	<1	<1	<1	<1	2138	755	934	18		9
09-Aug-19	T010-49225-0329	614000	5000	Y	Y	<1	13	2	2	<1	<1	4	4	<1	14	<1	<1	<1	<1	<1	<1	2140	802	1015	64		45
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354		313

## OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
27-Mar-20	T010-50098-0316	FUCHS	CARGO	15W-40	Y	Y	11.7	84.1	131	18	12	18	8	N	P	6.01
04-Dec-19	T010-49351-0221	FUCHS	CARGO	15W-40	Y	Y	11.8	83.4	134	24	14	21	9	N	N	5.57
09-Aug-19	T010-49225-0329	FUCHS	CARGO	15W-40	Y	Y	11.8	86.0	129	24	14	20	9	N		
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63

## OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
27-Mar-20	T010-50098-0316	Y	Y	5
04-Dec-19	T010-49351-0221	Y	Y	3
09-Aug-19	T010-49225-0329	Y	Y	2
20-May-19	T010-49147-0419	Y	Y	7

Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus,  
 PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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**William Adams**



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PHONE: 03 9566 0666

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## CONTACT INFORMATION

MARCUS LUCHETTA  
WHELANS GROUP INVESTMENTS

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FAX:  
Email: workshop@whelansgroup.com.au

Interp By: Barry Swindells

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : ISUZU\_ISUZU  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 4  
SAMPLE LOCATION : BAIRNSDALE

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL. MORE SAMPLES NEEDED TO DEVELOP A TREND.

LAB #

T010-47150-0218

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	OVERALL EVAL	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
26-May-17	T010-47150-0218	524000	10000	Y	Y		<1	9	1	3	<1	<1	5	2	<1	87	<1	<1	<1	<1	<1	<1	1284	902	1143	369	354

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	OVERALL EVAL	V40	ST	OXI	SUL	NIT	W	F	PFc
26-May-17	T010-47150-0218	FUCHS	CARGO	15W-40	Y	Y		83.7	15	16	25	7	N	N	3.87

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	OVERALL EVAL	PQI
26-May-17	T010-47150-0218	Y	Y		9

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V40 = Viscosity@40C, W = Water, Zn = Zinc

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### EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

### SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 2  
SAMPLE LOCATION : BAIRNSDALE

Interp By: Tom Cokalis

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

LAB #

T010-47257-0120

#### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
12-Sep-17	T010-47257-0120	535848	10000	Y	Y	<1	6	<1	3	<1	<1	8	1	<1	85	<1	<1	<1	<1	<1	<1	1220	830	1090	355	377
26-May-17	T010-47150-0218	524000	10000	Y	Y	<1	9	1	3	<1	<1	5	2	<1	87	<1	<1	<1	<1	<1	<1	1284	902	1143	369	354

#### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V40	ST	OXI	SUL	NIT	W	F	PFc
12-Sep-17	T010-47257-0120	FUCHS	CARGO	15W-40	Y	Y	89.8	10	15	21	6	N	N	3.00
26-May-17	T010-47150-0218	FUCHS	CARGO	15W-40	Y	Y	83.7	15	16	25	7	N	N	3.87

#### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
12-Sep-17	T010-47257-0120	Y	Y	4
26-May-17	T010-47150-0218	Y	Y	9

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V40 = Viscosity@40C, W = Water, Zn = Zinc

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## EQUIPMENT

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SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 6  
SAMPLE LOCATION : BAIRNSDALE

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR.

LAB #

T010-48030-0126

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
24-Jan-18	T010-48030-0126	548238	12390	Y	Y	<1	11	2	4	1	1	7	2	1	85	<1	<1	<1	<1	<1	<1	1175	839	1076	340	324
12-Sep-17	T010-47257-0120	535848	10000	Y	Y	<1	6	<1	3	<1	<1	8	1	<1	85	<1	<1	<1	<1	<1	<1	1220	830	1090	355	377
26-May-17	T010-47150-0218	524000	10000	Y	Y	<1	9	1	3	<1	<1	5	2	<1	87	<1	<1	<1	<1	<1	<1	1284	902	1143	369	354

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V40	ST	OXI	SUL	NIT	W	F	PFc
24-Jan-18	T010-48030-0126	FUCHS	CARGO	15W-40	Y	Y	81.0	15	17	22	8	N	N	4.02
12-Sep-17	T010-47257-0120	FUCHS	CARGO	15W-40	Y	Y	89.8	10	15	21	6	N	N	3.00
26-May-17	T010-47150-0218	FUCHS	CARGO	15W-40	Y	Y	83.7	15	16	25	7	N	N	3.87

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
24-Jan-18	T010-48030-0126	Y	Y	1
12-Sep-17	T010-47257-0120	Y	Y	4
26-May-17	T010-47150-0218	Y	Y	9

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V40 = Viscosity@40C, W = Water, Zn = Zinc

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AUS 3875  
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FAX:  
Email: workshop@whelansgroup.com.au

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 3  
SAMPLE LOCATION : WORK SHOP

Interp By: Tom Cokalis

### Action Required

FUEL DILUTION OF 5.4% Vol. IS WITHIN THE CATERPILLAR LIMIT OF 6% Vol. HOWEVER ONLY 7762 HOURS ON THE OIL. LOW OIL VISCOSITY AND FUEL TEST INDICATES A MODERATE LEVEL OF FUEL DILUTION. CHECK WITH ENGINE MANUFACTURER FOR THE MAXIMUM ALLOWABLE FUEL DILUTION PERCENTAGE. MONITOR COMPARTMENT FOR RISING OIL LEVEL. ALL OTHER TEST RESULTS APPEAR ACCEPTABLE. CHECK & ENSURE THIS COMPARTMENT OPERATING CORRECTLY. MONITOR IDLE TIME. INVESTIGATE THE CAUSE OF FUEL DILUTION THEN RESAMPLE AT THE NEXT RECOMMENDED SERVICE INTERVAL.

LAB #  
T010-48130-0118

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
07-May-18	T010-48130-0118	556000	7762	Y	Y	<1	9	2	3	2	1	5	2	<1	82	<1	<1	<1	<1	<1	<1	1293	920	1210	351	339
24-Jan-18	T010-48030-0126	548238	12390	Y	Y	<1	11	2	4	1	1	7	2	1	85	<1	<1	<1	<1	<1	<1	1175	839	1076	340	324
12-Sep-17	T010-47257-0120	535848	10000	Y	Y	<1	6	<1	3	<1	<1	8	1	<1	85	<1	<1	<1	<1	<1	<1	1220	830	1090	355	377
26-May-17	T010-47150-0218	524000	10000	Y	Y	<1	9	1	3	<1	<1	5	2	<1	87	<1	<1	<1	<1	<1	<1	1284	902	1143	369	354

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
07-May-18	T010-48130-0118	FUCHS	CARGO	15W-40	Y	Y	12.2	83.7	141	20	16	21	7	N	N	5.41
24-Jan-18	T010-48030-0126	FUCHS	CARGO	15W-40	Y	Y		81.0		15	17	22	8	N	N	4.02
12-Sep-17	T010-47257-0120	FUCHS	CARGO	15W-40	Y	Y		89.8		10	15	21	6	N	N	3.00
26-May-17	T010-47150-0218	FUCHS	CARGO	15W-40	Y	Y		83.7		15	16	25	7	N	N	3.87

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
07-May-18	T010-48130-0118	Y	Y	2
24-Jan-18	T010-48030-0126	Y	Y	1
12-Sep-17	T010-47257-0120	Y	Y	4
26-May-17	T010-47150-0218	Y	Y	9

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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Email: workshop@whelansgroup.com.au

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 5  
SAMPLE LOCATION : WORK SHOP

Interp By: Tom Cokalis

### Monitor Compartment

FUEL DILUTION LEVEL IS JUST WITHIN THE CATERPILLAR LIMIT OF 6.0% Vol. OIL VISCOSITY IS SLIGHTLY LOW. MONITOR IDLE TIME. MONITOR COMPARTMENT FOR RISING OIL LEVEL. WEAR METAL LEVELS ARE ACCEPTABLE. ALL OTHER TEST RESULTS APPEAR ACCEPTABLE. CHECK & ENSURE THIS COMPARTMENT OPERATING CORRECTLY. AFTER INSPECTION RESAMPLE AT THE NEXT SERVICE INTERVAL TO RE-EVALUATE CONDITION .

LAB #

T010-48247-0127

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
30-Aug-18	T010-48247-0127	571357	15357	Y	Y	<1	15	3	3	1	2	6	2	<1	74	<1	<1	<1	<1	<1	<1	1160	845	1043	313	287
07-May-18	T010-48130-0118	556000	7762	Y	Y	<1	9	2	3	2	1	5	2	<1	82	<1	<1	<1	<1	<1	<1	1293	920	1210	351	339
24-Jan-18	T010-48030-0126	548238	12390	Y	Y	<1	11	2	4	1	1	7	2	1	85	<1	<1	<1	<1	<1	<1	1175	839	1076	340	324
12-Sep-17	T010-47257-0120	535848	10000	Y	Y	<1	6	<1	3	<1	<1	8	1	<1	85	<1	<1	<1	<1	<1	<1	1220	830	1090	355	377

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
30-Aug-18	T010-48247-0127	FUCHS	CARGO	15W-40	Y	Y	11.6	81.9	133	30	18	23	9	N	N	5.84
07-May-18	T010-48130-0118	FUCHS	CARGO	15W-40	Y	Y	12.2	83.7	141	20	16	21	7	N	N	5.41
24-Jan-18	T010-48030-0126	FUCHS	CARGO	15W-40	Y	Y		81.0		15	17	22	8	N	N	4.02
12-Sep-17	T010-47257-0120	FUCHS	CARGO	15W-40	Y	Y		89.8		10	15	21	6	N	N	3.00

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
30-Aug-18	T010-48247-0127	Y	Y	0
07-May-18	T010-48130-0118	Y	Y	2
24-Jan-18	T010-48030-0126	Y	Y	1
12-Sep-17	T010-47257-0120	Y	Y	4

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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Email: workshop@whelansgroup.com.au

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 3  
SAMPLE LOCATION : WORK SHOP

Interp By: Tom Cokalis

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

LAB #

T010-48327-0121

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338
30-Aug-18	T010-48247-0127	571357	15357	Y	Y	<1	15	3	3	1	2	6	2	<1	74	<1	<1	<1	<1	<1	<1	1160	845	1043	313	287
07-May-18	T010-48130-0118	556000	7762	Y	Y	<1	9	2	3	2	1	5	2	<1	82	<1	<1	<1	<1	<1	<1	1293	920	1210	351	339
24-Jan-18	T010-48030-0126	548238	12390	Y	Y	<1	11	2	4	1	1	7	2	1	85	<1	<1	<1	<1	<1	<1	1175	839	1076	340	324

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85
30-Aug-18	T010-48247-0127	FUCHS	CARGO	15W-40	Y	Y	11.6	81.9	133	30	18	23	9	N	N	5.84
07-May-18	T010-48130-0118	FUCHS	CARGO	15W-40	Y	Y	12.2	83.7	141	20	16	21	7	N	N	5.41
24-Jan-18	T010-48030-0126	FUCHS	CARGO	15W-40	Y	Y		81.0		15	17	22	8	N	N	4.02

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
20-Nov-18	T010-48327-0121	Y	Y	3
30-Aug-18	T010-48247-0127	Y	Y	0
07-May-18	T010-48130-0118	Y	Y	2
24-Jan-18	T010-48030-0126	Y	Y	1

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 4  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

LAB #

T010-49032-0408

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338
30-Aug-18	T010-48247-0127	571357	15357	Y	Y	<1	15	3	3	1	2	6	2	<1	74	<1	<1	<1	<1	<1	<1	1160	845	1043	313	287
07-May-18	T010-48130-0118	556000	7762	Y	Y	<1	9	2	3	2	1	5	2	<1	82	<1	<1	<1	<1	<1	<1	1293	920	1210	351	339

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85
30-Aug-18	T010-48247-0127	FUCHS	CARGO	15W-40	Y	Y	11.6	81.9	133	30	18	23	9	N	N	5.84
07-May-18	T010-48130-0118	FUCHS	CARGO	15W-40	Y	Y	12.2	83.7	141	20	16	21	7	N	N	5.41

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
28-Jan-19	T010-49032-0408	Y	Y	0
20-Nov-18	T010-48327-0121	Y	Y	3
30-Aug-18	T010-48247-0127	Y	Y	0
07-May-18	T010-48130-0118	Y	Y	2

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 7  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR. OIL KLMS AND TOTAL KLMS  
APPEAR INCONSISTENT.

LAB #

T010-49064-0513

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379
20-Nov-18	T010-48327-0121	581096	15000	Y	Y	<1	15	2	4	1	2	6	1	1	80	<1	<1	<1	<1	<1	<1	1236	891	1127	360	338
30-Aug-18	T010-48247-0127	571357	15357	Y	Y	<1	15	3	3	1	2	6	2	<1	74	<1	<1	<1	<1	<1	<1	1160	845	1043	313	287

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	
20-Nov-18	T010-48327-0121	FUCHS	CARGO	15W-40	Y	Y	12.3	87.3	136	27	17	22	8	N	N	3.85
30-Aug-18	T010-48247-0127	FUCHS	CARGO	15W-40	Y	Y	11.6	81.9	133	30	18	23	9	N	N	5.84

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
26-Feb-19	T010-49064-0513	Y	Y	3
28-Jan-19	T010-49032-0408	Y	Y	0
20-Nov-18	T010-48327-0121	Y	Y	3
30-Aug-18	T010-48247-0127	Y	Y	0

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

## ENGINE TRUCK

EQUIP NUM: TK45

SERIAL NUMBER: TK45\_WHELANS

ISUZU FFR500



## Monitor Compartment

T010-54326-0516

SAMPLE SHIP TIME (days) : 7

WHELANS GROUP

INVESTMENTS PTY LTD

LOCATION: WORKSHOP

RECEIVED DATE: 21-Nov-24

Interp By: Tom Cokalis

Interpreted On: 27-Nov-24

LOW OIL VISCOSITY AND FUEL TEST INDICATES A MODERATE LEVEL OF FUEL DILUTION. MONITOR IDLE TIME. MONITOR COMPARTMENT FOR RISING OIL LEVEL. ALL OTHER TEST RESULTS APPEAR ACCEPTABLE. WE WILL MONITOR ACTIVITY OVER THE NEXT FEW SAMPLES. AFTER INSPECTION RESAMPLE AT THE NEXT SERVICE INTERVAL TO RE-EVALUATE CONDITION.

## SAMPLE INFORMATION



	14-Nov-24	14-Aug-23	10-Aug-23	02-Jun-22
Sampled Date	14-Nov-24	14-Aug-23	10-Aug-23	02-Jun-22
Sample Id	T010-54326-0516	T010-53230-0235	T010-53228-0604	T010-52160-0414
Lab Date	21-Nov-24	18-Aug-23	16-Aug-23	09-Jun-22
Meter [Km]	695092	533731	685589	675000
Comp Meter [Km]	695092			
Meter On Fluid	10000	15000	10000	10000
Fluid Brand	VALVOLINE	VALVOLINE	VALVOLINE	FUCHS
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	all fleet plus e900	all fleet plus e900	all fleet plus e900	CARGO
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid []	12.5			
Total Fluid Added	12.5	0	0	0

## WEAR LEVELS / ADDITIVES

		14-Nov-24	14-Aug-23	10-Aug-23	02-Jun-22
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	2	1	1	1
Fe	Iron	19	7	19	9
Cr	Chromium	4	1	5	2
Al	Aluminum	2	2	2	1
Pb	Lead	1	0	1	0
Sn	Tin	2	0	0	0
Si	Silicon	4	4	4	4
Na	Sodium	4	3	2	2
K	Potassium	0	1	0	2
Mo	Molybdenum	78	88	61	0
Ni	Nickel	1	1	1	1
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	1	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	1565	1473	1298	2211
P	Phosphorus	1089	988	787	871
Zn	Zinc	1230	1186	972	1027
Mg	Magnesium	385	433	321	9
Ba	Barium	0	0	0	0
B	Boron	334	405	231	1

## PREVIOUS SAMPLE

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

For additional sample history, go to:

[S.O.S WEB](#)

## CONDITION / CONTAMINATION

		14-Nov-24	14-Aug-23	10-Aug-23	02-Jun-22
VISCOSITY (CENTISTOKES) ASTM D445					
V100	Viscosity at 100 C	11.86	14.16	10.83	11.57
VISCOSITY (CENTISTOKES) ASTM D445					
V40	Viscosity at 40 C	82.26	107.2	71.63	81.71

## VISCOSITY INDEX

VI	Viscosity Index	138	135	139	134
----	-----------------	-----	-----	-----	-----

## INFRARED (UFM) ASTM E2412

ST	Soot	23	2	23	14
OXI	Oxidation	18	16	20	13
SUL	Sulfur Products	24	22	24	18
NIT	Nitration	0	0	0	8

## WATER - HOTPLATE

W	Water	N	N	N	N
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## FUEL DILUTION (SCREEN)

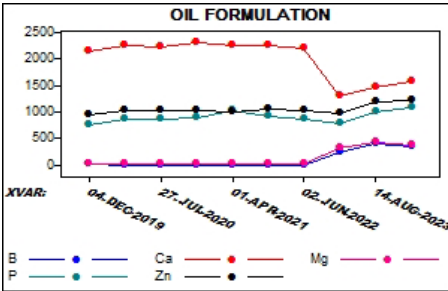
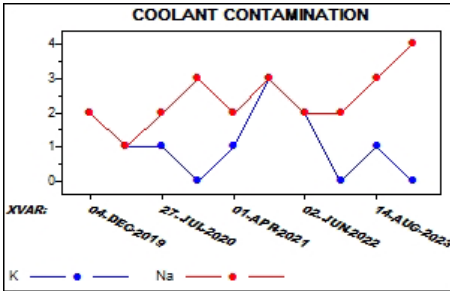
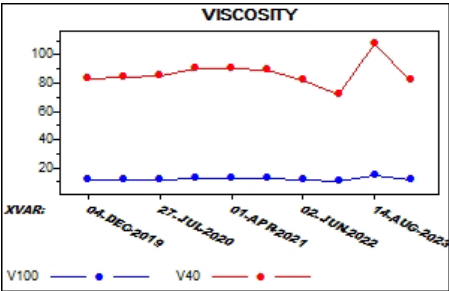
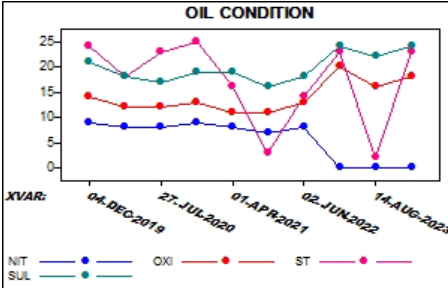
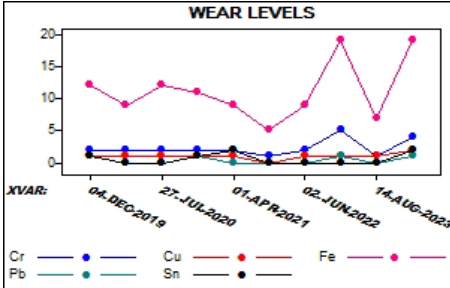
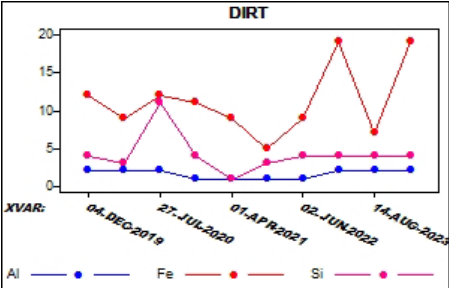
F	Fuel	P	N	P	P
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## FUEL DILUTION (%) ASTM D7593

PFc	Percent Fuel	6.89	<2	6.12	6.29
-----	--------------	------	----	------	------

## CLEANLINESS

		14-Nov-24	14-Aug-23	10-Aug-23	02-Jun-22
FERROUS DEBRIS					
PQI	PQ Index	0	0	0	0



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJvUrs>

## ENGINE TRUCK

EQUIP NUM: TK45

SERIAL NUMBER: TK45\_WHELANS

T010-53228-0604

SAMPLE SHIP TIME (days) : 6

WHELANS GROUP

INVESTMENTS PTY LTD

RECEIVED DATE: 16-Aug-23

ISUZU FFR500



## Action Required

Interp By: Tom Cokalis

Interpreted On: 18-Aug-23

LOW OIL VISCOSITY AND FUEL TEST INDICATES A MODERATELY HIGH LEVEL OF FUEL DILUTION. CHECK WITH ENGINE MANUFACTURER FOR THE MAXIMUM ALLOWABLE FUEL DILUTION PERCENTAGE. IRON IS SLIGHTLY HIGH. CHROME LEVELS ARE ELEVATED. CHECK FILTER MEDIUM AND SCREENS FOR WEAR MATERIAL AND CONTAMINATION. INVESTIGATE THE CAUSE OF FUEL DILUTION THEN RESAMPLE AT THE NEXT RECOMMENDED SERVICE INTERVAL.

## SAMPLE INFORMATION



	10-Aug-23	02-Jun-22	16-Jul-21	01-Apr-21
Sampled Date	10-Aug-23	02-Jun-22	16-Jul-21	01-Apr-21
Sample Id	T010-53228-0604	T010-52160-0414	T010-51201-0324	T010-51105-0232
Lab Date	16-Aug-23	09-Jun-22	20-Jul-21	15-Apr-21
Meter [Hr]	685589	675000	665000	665000
Meter On Fluid	10000	10000	10000	10000
Fluid Brand	VALVOLINE	FUCHS	FUCHS	FUCHS
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	all fleet plus e900	CARGO	CARGO	CARGO
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid [L]			0	0
Total Fluid Added	0	0	0	0

## PREVIOUS SAMPLE

FUEL TEST INDICATE FUEL DILUTION, ENSURE CORRECT COMPARTMENT  
CONDITION, MONITOR THE COMPARTMENT OIL LEVEL, RESAMPLE AT HALF  
THE RECOMMENDED INTERVAL.

For additional sample history, go to: [my.cat.com](https://my.cat.com)

## CONDITION / CONTAMINATION

		10-Aug-23	02-Jun-22	16-Jul-21	01-Apr-21
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>					
V100	Viscosity at 100 C	10.83	11.57	12.4	12.4
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>					
V40	Viscosity at 40 C	71.63	81.71	89.6	90.3

## WEAR LEVELS / ADDITIVES

		10-Aug-23	02-Jun-22	16-Jul-21	01-Apr-21
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>					
Cu	Copper	1	1	0	1
Fe	Iron	19	9	5	9
Cr	Chromium	5	2	1	2
Al	Aluminum	2	1	1	1
Pb	Lead	1	0	0	0
Sn	Tin	0	0	0	2
Si	Silicon	4	4	3	1
Na	Sodium	2	2	3	2
K	Potassium	0	2	3	1
Mo	Molybdenum	61	0	1	1
Ni	Nickel	1	1	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	1298	2211	2266	2252
P	Phosphorus	787	871	906	1018
Zn	Zinc	972	1027	1061	1012
Mg	Magnesium	321	9	10	7
Ba	Barium	0	0	0	0
B	Boron	231	1	2	1

## VISCOSITY INDEX

VI	Viscosity Index	139	134	133	132
<b>INFRARED (UFM) ASTM E2412</b>					
ST	Soot	23	14	3	16
OXI	Oxidation	20	13	11	11
SUL	Sulfur Products	24	18	16	19
NIT	Nitration	0	8	7	8

## WATER - HOTPLATE

W	Water	N	N	N	N
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## FUEL DILUTION (SCREEN)

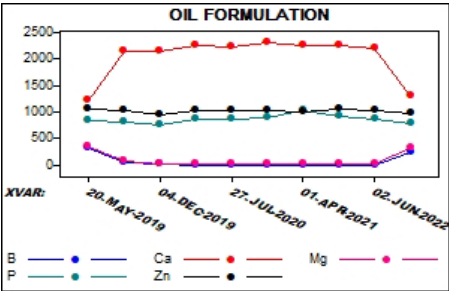
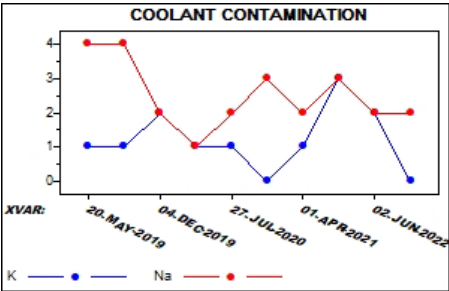
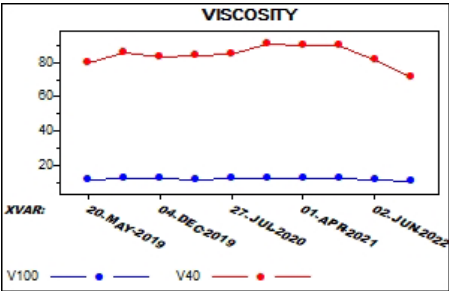
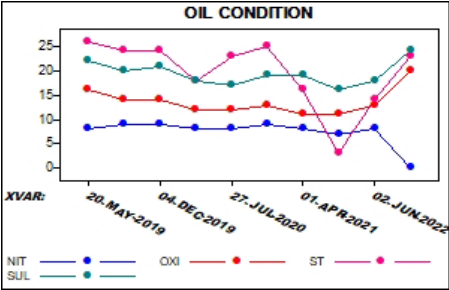
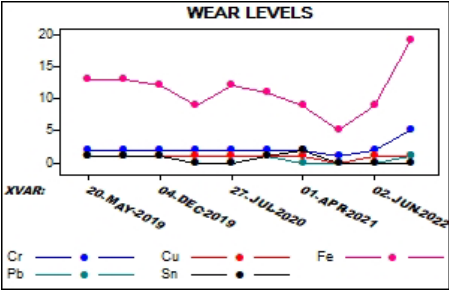
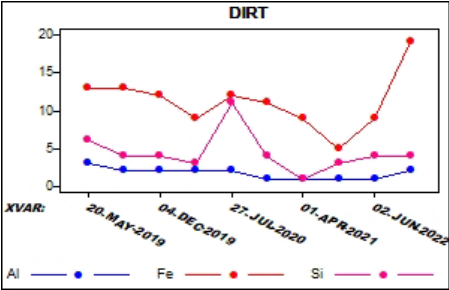
F	Fuel	P	P	N	N
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## FUEL DILUTION (%) ASTM D7593

PFc	Percent Fuel	6.12	6.29	4.05	4.50
-----	--------------	------	------	------	------

## CLEANLINESS

		10-Aug-23	02-Jun-22	16-Jul-21	01-Apr-21
<b>FERROUS DEBRIS</b>					
PQI	PQ Index	0	0	6	6



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJvUrs>





ENGINE TRUCK

EQUIP NUM: TK45

SERIAL NUMBER: TK45\_WHELANS

T010-53230-0235  
SAMPLE SHIP TIME (days) : 4  
WHELANS GROUP  
INVESTMENTS PTY LTD  
LOCATION: WORKSHOP  
RECEIVED DATE: 18-Aug-23

ISUZU FFR500  
No Action Required

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

Interp By: Tom Cokalis  
Interpreted On: 21-Aug-23

SAMPLE INFORMATION

	14-Aug-23	10-Aug-23	02-Jun-22	16-Jul-21
Sampled Date	14-Aug-23	10-Aug-23	02-Jun-22	16-Jul-21
Sample Id	T010-53230-0235	T010-53228-0604	T010-52160-0414	T010-51201-0324
Lab Date	18-Aug-23	16-Aug-23	09-Jun-22	20-Jul-21
Meter [Hr]	533731	685589	675000	665000
Meter On Fluid	15000	10000	10000	10000
Fluid Brand	VALVOLINE	VALVOLINE	FUCHS	FUCHS
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	all fleet plus e900	all fleet plus e900	CARGO	CARGO
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid [L]				0
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

LOW OIL VISCOSITY AND FUEL TEST INDICATES A MODERATELY HIGH LEVEL OF FUEL DILUTION. CHECK WITH ENGINE MANUFACTURER FOR THE MAXIMUM ALLOWABLE FUEL DILUTION PERCENTAGE. IRON IS SLIGHTLY HIGH. CHROME LEVELS ARE ELEVATED. CHECK FILTER MEDIUM AND SCREENS FOR WEAR MATERIAL AND CONTAMINATION. INVESTIGATE THE CAUSE OF FUEL DILUTION THEN RESAMPLE AT THE NEXT RECOMMENDED SERVICE INTERVAL.

For additional sample history, go to: [my.cat.com](https://my.cat.com)

CONDITION / CONTAMINATION

	14-Aug-23	10-Aug-23	02-Jun-22	16-Jul-21
VISCOSITY (CENTISTOKES) ASTM D445				
V100 Viscosity at 100 C	14.16	10.83	11.57	12.4

V40 Viscosity at 40 C	107.2	71.63	81.71	89.6
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VI Viscosity Index	135	139	134	133
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INFRARED (UFM) ASTM E2412				
ST Soot	2	23	14	3
OXI Oxidation	16	20	13	11
SUL Sulfur Products	22	24	18	16
NIT Nitration	0	0	8	7

WATER - HOTPLATE				
W Water	N	N	N	N

FUEL DILUTION (SCREEN)				
F Fuel	N	P	P	N

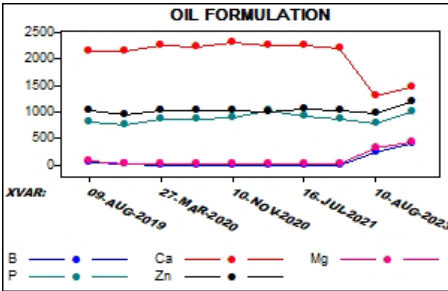
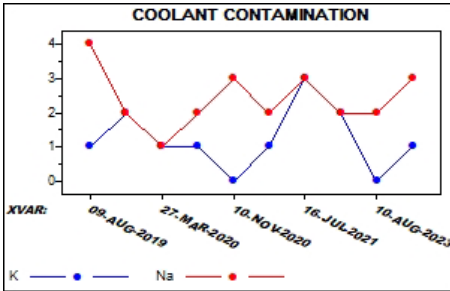
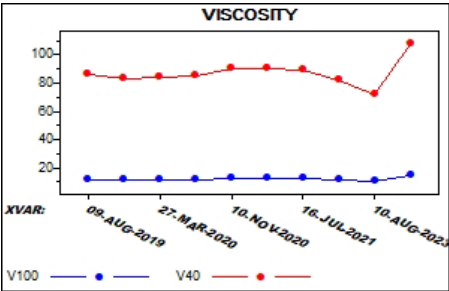
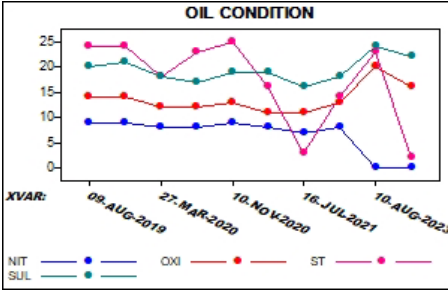
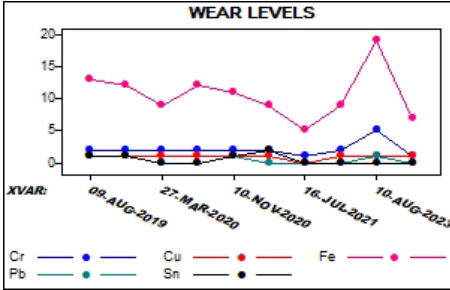
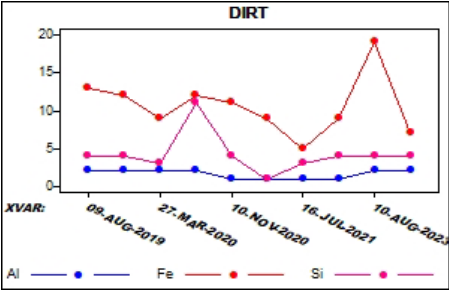
FUEL DILUTION (%) ASTM D7593				
PFc Percent Fuel	<2	6.12	6.29	4.05

CLEANLINESS

	14-Aug-23	10-Aug-23	02-Jun-22	16-Jul-21
FERROUS DEBRIS				
PQI PQ Index	0	0	0	6

WEAR LEVELS / ADDITIVES

	14-Aug-23	10-Aug-23	02-Jun-22	16-Jul-21
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]				
Cu Copper	1	1	1	0
Fe Iron	7	19	9	5
Cr Chromium	1	5	2	1
Al Aluminum	2	2	1	1
Pb Lead	0	1	0	0
Sn Tin	0	0	0	0
Si Silicon	4	4	4	3
Na Sodium	3	2	2	3
K Potassium	1	0	2	3
Mo Molybdenum	88	61	0	1
Ni Nickel	1	1	1	0
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Mn Manganese	0	0	0	0
Cd Cadmium	0	0	0	0
Ca Calcium	1473	1298	2211	2266
P Phosphorus	988	787	871	906
Zn Zinc	1186	972	1027	1061
Mg Magnesium	433	321	9	10
Ba Barium	0	0	0	0
B Boron	405	231	1	2



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJvUrs>

## ENGINE TRUCK

EQUIP NUM: TK45

SERIAL NUMBER: TK45\_WHELANS

ISUZU FFR500



No Action Required

T010-51105-0232

LABEL#:

SHOP JOB NUM :

SAMPLE SHIP TIME (days) : 14

WHELANS GROUP

INVESTMENTS PTY LTD

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

Interp By: Tom Cokalis  
Interpreted On: 28-Apr-21

## SAMPLE INFORMATION



	01-Apr-21	10-Nov-20	27-Jul-20	27-Mar-20
Sampled Date	01-Apr-21	10-Nov-20	27-Jul-20	27-Mar-20
Sample Id	T010-51105-0232	T010-50318-0513	T010-50211-0621	T010-50098-0316
Lab Date	15-Apr-21	13-Nov-20	29-Jul-20	07-Apr-20
Meter [Hr]	665000	655000	645000	636251
Meter On Fluid	10000	10000	10000	10000
Fluid Brand	FUCHS	FUCHS	FUCHS	FUCHS
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	CARGO	CARGO	CARGO	CARGO
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid [L]	0	0	0	

## PREVIOUS SAMPLE

OIL	CONDITION	SATISFACTORY,	CONTINUE	SAMPLING	AT THE
					RECOMMENDED INTERVAL.

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

## CONDITION / CONTAMINATION

		01-Apr-21	10-Nov-20	27-Jul-20	27-Mar-20
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>					
V100	Viscosity at 100 C	12.4	12.3	11.8	11.7

<b>VISCOSITY (CENTISTOKES) ASTM D445</b>					
V40	Viscosity at 40 C	90.3	90.4	84.7	84.1

<b>VISCOSITY INDEX</b>					
VI	Viscosity Index	132	130	132	131

<b>INFRARED (UFM) ASTM E2412</b>					
ST	Soot	16	25	23	18
OXI	Oxidation	11	13	12	12
SUL	Sulfur Products	19	19	17	18
NIT	Nitration	8	9	8	8

<b>WATER - HOTPLATE</b>					
W	Water	N	N	N	N

<b>FUEL DILUTION (SCREEN)</b>					
F	Fuel	N	N	P	P

<b>FUEL DILUTION (%) ASTM D7593</b>					
PFc	Percent Fuel	4.50	4.88	6.57	6.01

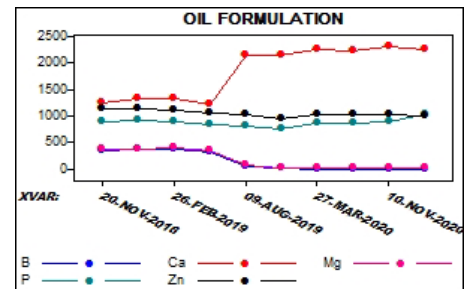
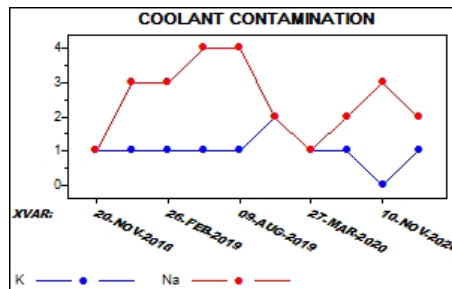
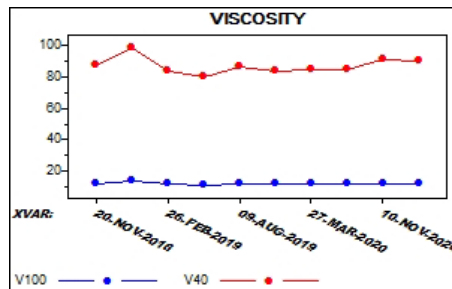
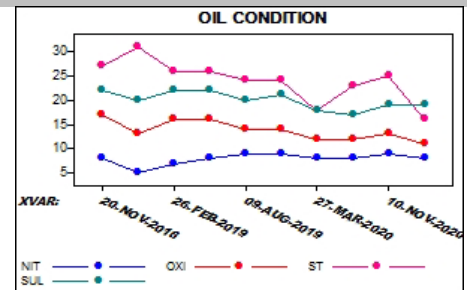
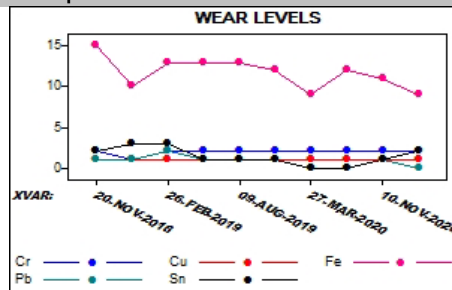
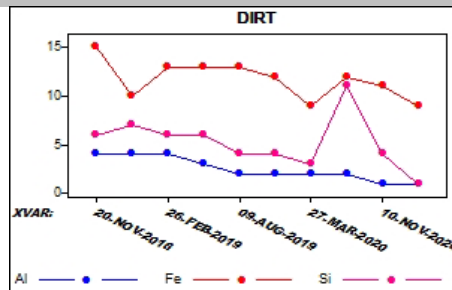
## CLEANLINESS

		01-Apr-21	10-Nov-20	27-Jul-20	27-Mar-20
<b>FERROUS DEBRIS</b>					
PQI	PQ Index	6	6	6	5

## WEAR LEVELS / ADDITIVES

01-Apr-21 10-Nov-20 27-Jul-20 27-Mar-20

ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	1	1	1	1
Fe	Iron	9	11	12	9
Cr	Chromium	2	2	2	2
Al	Aluminum	1	1	2	2
Pb	Lead	0	1	0	0
Sn	Tin	2	1	0	0
Si	Silicon	1	4	11	3
Na	Sodium	2	3	2	1
K	Potassium	1	0	1	1
Mo	Molybdenum	1	1	0	1
Ni	Nickel	0	0	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	2252	2297	2215	2250
P	Phosphorus	1018	887	856	860
Zn	Zinc	1012	1035	1028	1027
Mg	Magnesium	7	12	11	11
Ba	Barium	0	0	0	0
B	Boron	1	2	2	1

**REPORT COMMENT**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>



WILLIAM ADAMS PTY. LTD - William Adams Pty. Ltd. 17-55 Nantilla Road  
Clayton North, Vic 3168 Australia  
Phone: 03 9566 0666  
Web: www.williamadams.com.au Email: SOSManager@wadams.com.au



ENGINE TRUCK

EQUIP NUM: TK45

SERIAL NUMBER: TK45\_WHELANS

T010-51201-0324

SAMPLE SHIP TIME (days) : 4

WHELANS GROUP

INVESTMENTS PTY LTD

RECEIVED DATE: 20-Jul-21

BRANCH REC DT: 20-Jul-21



Monitor Compartment

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR.

Interp By: Barry Swindells

Interpreted On: 21-Jul-21

SAMPLE INFORMATION



	16-Jul-21	01-Apr-21	10-Nov-20	27-Jul-20
Sampled Date	16-Jul-21	01-Apr-21	10-Nov-20	27-Jul-20
Sample Id	T010-51201-0324	T010-51105-0232	T010-50318-0513	T010-50211-0621
Lab Date	20-Jul-21	15-Apr-21	13-Nov-20	29-Jul-20
Meter [Hr]	665000	665000	655000	645000
Meter On Fluid	10000	10000	10000	10000
Fluid Brand	FUCHS	FUCHS	FUCHS	FUCHS
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	CARGO	CARGO	CARGO	CARGO
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid [L]	0	0	0	0

PREVIOUS SAMPLE

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

For additional sample history, go to: [my.cat.com](https://my.cat.com)

CONDITION / CONTAMINATION

		16-Jul-21	01-Apr-21	10-Nov-20	27-Jul-20
VISCOSITY (CENTISTOKES) ASTM D445					
V100	Viscosity at 100 C	12.4	12.4	12.3	11.8
VISCOSITY (CENTISTOKES) ASTM D445					
V40	Viscosity at 40 C	89.6	90.3	90.4	84.7

WEAR LEVELS / ADDITIVES

		16-Jul-21	01-Apr-21	10-Nov-20	27-Jul-20
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	0	1	1	1
Fe	Iron	5	9	11	12
Cr	Chromium	1	2	2	2
Al	Aluminum	1	1	1	2
Pb	Lead	0	0	1	0
Sn	Tin	0	2	1	0
Si	Silicon	3	1	4	11
Na	Sodium	3	2	3	2
K	Potassium	3	1	0	1
Mo	Molybdenum	1	1	1	0
Ni	Nickel	0	0	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	2266	2252	2297	2215
P	Phosphorus	906	1018	887	856
Zn	Zinc	1061	1012	1035	1028
Mg	Magnesium	10	7	12	11
Ba	Barium	0	0	0	0
B	Boron	2	1	2	2

VISCOSITY INDEX

VI	Viscosity Index	133	132	130	132
----	-----------------	-----	-----	-----	-----

INFRARED (UFM) ASTM E2412

ST	Soot	3	16	25	23
OXI	Oxidation	11	11	13	12
SUL	Sulfur Products	16	19	19	17
NIT	Nitration	7	8	9	8

WATER - HOTPLATE

W	Water	N	N	N	N
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FUEL DILUTION (SCREEN)

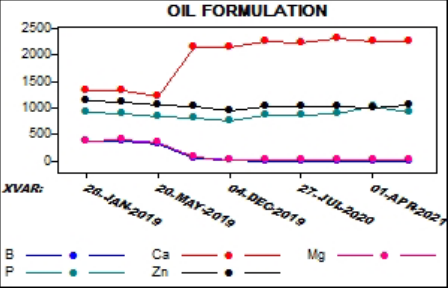
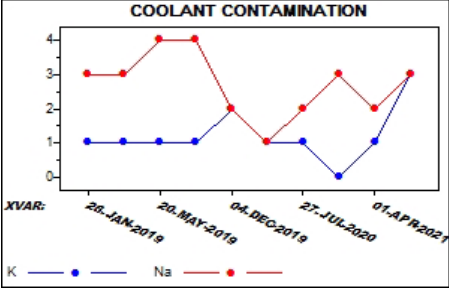
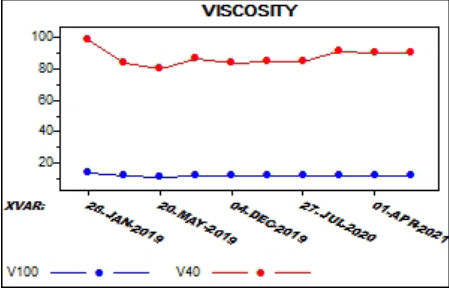
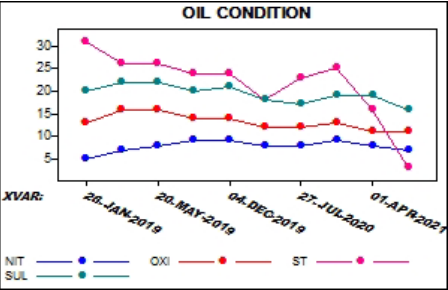
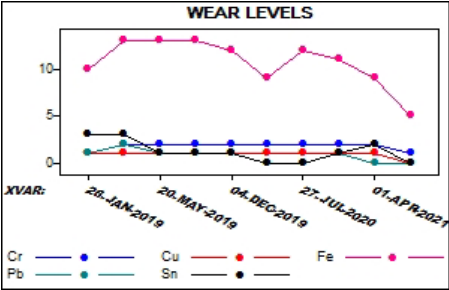
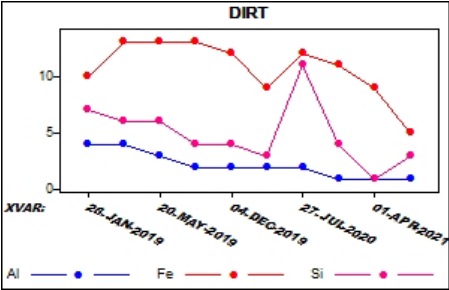
F	Fuel	N	N	N	P
---	------	---	---	---	---

FUEL DILUTION (%) ASTM D7593

PFc	Percent Fuel	4.05	4.50	4.88	6.57
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CLEANLINESS

		16-Jul-21	01-Apr-21	10-Nov-20	27-Jul-20
FERROUS DEBRIS					
PQI	PQ Index	6	6	6	6



**REPORT COMMENT**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJvUrs>

# William Adams



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## CONTACT INFORMATION

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103 RUPERT ST  
BAIRNSDALE, VIC  
AUS 3875  
PHONE: 5152 2844  
FAX:  
Email: workshop@whelansgroup.com.au

## EQUIPMENT

EQUIP NUM: TK45  
SERIAL NUMBER: TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM:  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 2  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

### Action Required

FUEL TEST INDICATE FUEL DILUTION, ENSURE CORRECT COMPARTMENT CONDOITION, MONITOR THE COMPARTMENT OIL LEVEL, RESAMPLE AT HALF THE RECOMMENDED INTERVAL. \* Note this is the amended report with the fuel dilution percentage results entered.

LAB #

T010-50211-0621

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	Ba	B
27-Jul-20	T010-50211-0621	645000	10000	Y	Y	1	12	2	2	0	0	11	2	1	0	0	0	0	0	0	0	2215	856	1028	11	0	2
27-Mar-20	T010-50098-0316	636251	10000	Y	Y	1	9	2	2	0	0	3	1	1	1	0	0	0	0	0	2250	860	1027	11	0	1	
04-Dec-19	T010-49351-0221	627165	13165	Y	Y	1	12	2	2	<1	<1	4	2	2	3	<1	<1	<1	<1	<1	<1	2138	755	934	18		9
09-Aug-19	T010-49225-0329	614000	5000	Y	Y	<1	13	2	2	<1	<1	4	4	<1	14	<1	<1	<1	<1	<1	<1	2140	802	1015	64		45

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
27-Jul-20	T010-50211-0621	FUCHS	CARGO	15W-40	Y	Y	11.8	84.7	132	23	12	17	8	N	P	6.57
27-Mar-20	T010-50098-0316	FUCHS	CARGO	15W-40	Y	Y	11.7	84.1	131	18	12	18	8	N	P	6.01
04-Dec-19	T010-49351-0221	FUCHS	CARGO	15W-40	Y	Y	11.8	83.4	134	24	14	21	9	N	N	5.57
09-Aug-19	T010-49225-0329	FUCHS	CARGO	15W-40	Y	Y	11.8	86.0	129	24	14	20	9	N		

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
27-Jul-20	T010-50211-0621	Y	Y	6
27-Mar-20	T010-50098-0316	Y	Y	5
04-Dec-19	T010-49351-0221	Y	Y	3
09-Aug-19	T010-49225-0329	Y	Y	2

Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

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AUS 3875  
PHONE: 5152 2844  
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Email: workshop@whelansgroup.com.au

## EQUIPMENT

EQUIP NUM: TK45  
SERIAL NUMBER: TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM:  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 2  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

### Monitor Compartment

THIS IS A PRELIMINARY REPORT. THE FUEL DILUTION TEST IS DELAYED DUE TO INSTRUMENT REPAIRS. FINAL REPORT TO BE SENT UPON TEST COMPLETION. WE WILL MONITOR ACTIVITY OVER THE NEXT FEW SAMPLES. ALL OTHER TEST RESULTS APPEAR ACCEPTABLE. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

T010-50211-0621

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	Ba	B
27-Jul-20	T010-50211-0621	645000	10000	Y	Y	1	12	2	2	0	0	11	2	1	0	0	0	0	0	0	0	2215	856	1028	11	0	2
27-Mar-20	T010-50098-0316	636251	10000	Y	Y	1	9	2	2	0	0	3	1	1	1	0	0	0	0	0	0	2250	860	1027	11	0	1
04-Dec-19	T010-49351-0221	627165	13165	Y	Y	1	12	2	2	<1	<1	4	2	2	3	<1	<1	<1	<1	<1	<1	2138	755	934	18		9
09-Aug-19	T010-49225-0329	614000	5000	Y	Y	<1	13	2	2	<1	<1	4	4	<1	14	<1	<1	<1	<1	<1	<1	2140	802	1015	64		45

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
27-Jul-20	T010-50211-0621	FUCHS	CARGO	15W-40	Y	Y	11.8	84.7	132	23	12	17	8	N		
27-Mar-20	T010-50098-0316	FUCHS	CARGO	15W-40	Y	Y	11.7	84.1	131	18	12	18	8	N	P	6.01
04-Dec-19	T010-49351-0221	FUCHS	CARGO	15W-40	Y	Y	11.8	83.4	134	24	14	21	9	N	N	5.57
09-Aug-19	T010-49225-0329	FUCHS	CARGO	15W-40	Y	Y	11.8	86.0	129	24	14	20	9	N		

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
27-Jul-20	T010-50211-0621	Y	Y	6
27-Mar-20	T010-50098-0316	Y	Y	5
04-Dec-19	T010-49351-0221	Y	Y	3
09-Aug-19	T010-49225-0329	Y	Y	2

Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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## EQUIPMENT

EQUIP NUM: TK45  
SERIAL NUMBER: TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM:  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 3  
SAMPLE LOCATION :

Interp By: Tom Cokalis

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

LAB #

T010-50318-0513

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	Ba	B
10-Nov-20	T010-50318-0513	655000	10000	Y	Y	1	11	2	1	1	1	4	3	0	1	0	0	0	0	0	0	2297	887	1035	12	0	2
27-Jul-20	T010-50211-0621	645000	10000	Y	Y	1	12	2	2	0	0	11	2	1	0	0	0	0	0	0	0	2215	856	1028	11	0	2
27-Mar-20	T010-50098-0316	636251	10000	Y	Y	1	9	2	2	0	0	3	1	1	1	0	0	0	0	0	0	2250	860	1027	11	0	1
04-Dec-19	T010-49351-0221	627165	13165	Y	Y	1	12	2	2	<1	<1	4	2	2	3	<1	<1	<1	<1	<1	<1	2138	755	934	18		9

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
10-Nov-20	T010-50318-0513	FUCHS	CARGO	15W-40	Y	Y	12.3	90.4	130	25	13	19	9	N	N	4.88
27-Jul-20	T010-50211-0621	FUCHS	CARGO	15W-40	Y	Y	11.8	84.7	132	23	12	17	8	N	P	6.57
27-Mar-20	T010-50098-0316	FUCHS	CARGO	15W-40	Y	Y	11.7	84.1	131	18	12	18	8	N	P	6.01
04-Dec-19	T010-49351-0221	FUCHS	CARGO	15W-40	Y	Y	11.8	83.4	134	24	14	21	9	N	N	5.57

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
10-Nov-20	T010-50318-0513	Y	Y	6
27-Jul-20	T010-50211-0621	Y	Y	6
27-Mar-20	T010-50098-0316	Y	Y	5
04-Dec-19	T010-49351-0221	Y	Y	3

Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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AUS 3875  
PHONE: 5152 2844  
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Email: workshop@whelansgroup.com.au

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 4  
SAMPLE LOCATION : WORK SHOP

Interp By: Barry Swindells

**Monitor  
Compartment**

POSSIBLE FUEL DILUTION OCCURING, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL TO MONITOR. OIL KLMS AND TOTAL KLMS  
APPEAR INCONSISTENT.

LAB #

T010-49225-0329

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
09-Aug-19	T010-49225-0329	614000	5000	Y	Y	<1	13	2	2	<1	<1	4	4	<1	14	<1	<1	<1	<1	<1	<1	2140	802	1015	64	45
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354	313
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370
28-Jan-19	T010-49032-0408	522000	10000	Y	Y	<1	10	<1	4	<1	3	7	3	<1	82	<1	<1	<1	<1	<1	<1	1318	918	1148	380	379

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
09-Aug-19	T010-49225-0329	FUCHS	CARGO	15W-40	Y	Y	11.8	86.0	129	24	14	20	9	N		
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13
28-Jan-19	T010-49032-0408	FUCHS	CARGO	15W-40	Y	Y	13.7	97.7	141	31	13	20	5	N	N	

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
09-Aug-19	T010-49225-0329	Y	Y	2
20-May-19	T010-49147-0419	Y	Y	7
26-Feb-19	T010-49064-0513	Y	Y	3
28-Jan-19	T010-49032-0408	Y	Y	0

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PQI = Particle  
Quantifying index , Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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Interp By: Tom Cokalis

## EQUIPMENT

CUSTOMER EQUIP NUM : TK45  
SERIAL NUMBER : TK45\_WHELANS  
MODEL : FFR500  
MANUFACTURER : ISUZU  
COMPANY NAME : WHELANS GROUP INVESTMENTS PTY LTD  
JOB SITE :  
AREA:  
REGION:

## SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE TRUCK  
COMP SERIAL NUM :  
COMPARTMENT MODEL :  
LABEL#:  
SHOP JOB NUM :  
SAMPLE TYPE: OIL  
SAMPLE SHIP TIME (days) : 13  
SAMPLE LOCATION : WORK SHOP

**No Action Required**

OIL CONDITION SATISFACTORY, CONTINUE SAMPLING AT THE RECOMMENDED INTERVAL.

LAB #

T010-49351-0221

### WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER ( KM )	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	P	Zn	Mg	B
04-Dec-19	T010-49351-0221	627165	13165	Y	Y	1	12	2	2	<1	<1	4	2	2	3	<1	<1	<1	<1	<1	<1	2138	755	934	18	9
09-Aug-19	T010-49225-0329	614000	5000	Y	Y	<1	13	2	2	<1	<1	4	4	<1	14	<1	<1	<1	<1	<1	<1	2140	802	1015	64	45
20-May-19	T010-49147-0419	603978	10445	Y	Y	<1	13	2	3	<1	<1	6	4	<1	82	<1	<1	<1	<1	<1	<1	1227	828	1055	354	313
26-Feb-19	T010-49064-0513	593533	10000	Y	Y	<1	13	2	4	2	3	6	3	<1	90	<1	<1	<1	<1	<1	<1	1315	901	1110	396	370

### OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	W	F	PFc
04-Dec-19	T010-49351-0221	FUCHS	CARGO	15W-40	Y	Y	11.8	83.4	134	24	14	21	9	N	N	5.57
09-Aug-19	T010-49225-0329	FUCHS	CARGO	15W-40	Y	Y	11.8	86.0	129	24	14	20	9	N		
20-May-19	T010-49147-0419	FUCHS	CARGO	15W-40	Y	Y	11.5	80.1	135	26	16	22	8	N	N	5.63
26-Feb-19	T010-49064-0513	FUCHS	CARGO	15W-40	Y	Y	12.0	83.2	138	26	16	22	7	N	N	5.13

### OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	PQI
04-Dec-19	T010-49351-0221	Y	Y	3
09-Aug-19	T010-49225-0329	Y	Y	2
20-May-19	T010-49147-0419	Y	Y	7
26-Feb-19	T010-49064-0513	Y	Y	3

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cd = Cadmium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mn = Manganese, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, PFC = Percent Fuel Content, PQI = Particle Quantifying index, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.