

UNIT ID  
X535D E  
SECOND ID

UNIT TYPE  
DIESEL ENGINE  
APPLICATION  
AUTOMOTIVE



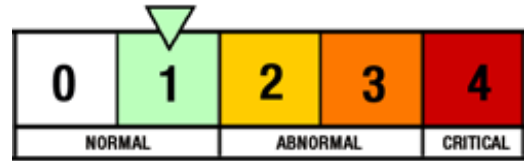
COMPANY INFORMATION  
LUBRICATION TECHNOLOGIES

413-788-5823  
120 BOSWORTH STREET  
WEST SPRINGFIELD , MA 01089

ACCOUNT NUMBER 59300001570000  
DATE SAMPLED 12/18/09  
DATE RECEIVED 01/06/10  
DATE COMPLETED 01/11/10

TRACKING # 08183002431  
MANUFACTURER/MODEL BMW X535D  
LUBE MFR CASTROL  
LUBE TYPE - GRADE SAE 5W30  
MICRON RATING 15  
FILTER TYPE FULLFLOW  
SUMP CAPACITY 2.00  
HYD SYSTEM PRESSURE 0  
FLUID ADDED

OVERALL SEVERITY OF REPORT  
based on comments, not individual flags



LAB # 438790 LOCATION I ANALYST EAD

FLUID ANALYSIS REPORT - 800-537-7683

COMMENTS Data flagged for observation only; Manganese sources in engines include manganese/bronze valve guides and/or a fuel additive; Flagged data has been rechecked and confirmed; Please provide missing lube type (PRODUCT NAME); Lubricant and filter change acknowledged;

	WEAR METALS PPM										CONTAMINANT METALS - PPM			MULTI-SOURCE METALS - PPM						ADDITIVE METALS PPM				
S A M P L E  #	IRON	CHROMIUM	NICKEL	ALUMINUM	COPPER	LEAD	TIN	CADMIUM	SILVER	VANADIUM	SILICON	SODIUM	POTASSIUM	TITANIUM	MOLYBDENUM	ANTIMONY	MANGANESE	LITHIUM	BORON	MAGNESIUM	CALCIUM	BARIUM	PHOSPHOROUS	ZINC
1	31	0	0	11	11	3	2	0	0	0	14	4	13	0	0	0	12	0	19	6	1708	0	427	47

S A M P L E  #	DATE SAMPLED	UNIT TIME	L U B E  CHG	F I L T E R  CHG	F U E L  GC	S O O T  Vol.	W A T E R  Infrared	V I S  40C CS	V I S  100C CS	T A N  Total Acid	T B N  Total Base	I-R  O X I D A	I-R  N I T R A	ISO  C O D E	4  M I C R O N	6  M I C R O N	10  M I C R O N	14  M I C R O N	21  M I C R O N	38  M I C R O N	70  M I C R O N	100  M I C R O N
	DATE RECEIVED	LUBE TIME		M I C R O N	M I C R O N	M I C R O N	M I C R O N	M I C R O N	M I C R O N	M I C R O N												
1	12/18/09 01/06/10	2532 2532	Y	Y	0.1%	<.1%	<.1		10.7													

SAMP #	1																				
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Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Missing lube or unit time limits the evaluation. No warranty is expressed or implied.