



AMERICAN PETROLEUM INSTITUTE

Audit EP2014-3692

Audit - U.S. GLOBAL PETROLEUM - EVEREST SYN BLEND 5W-30

Status: Complete

Brand Name: [EVEREST SYN BLEND](#)

Viscosity Grade: 5W-30

Service Category & Designation: SN Resource Conserving, ILSAC GF-5

Blind Sample ID: EP2014-3692

Sample Type: Packaged

Date Sample Taken: 02-Nov-2014

Sample Trace Code: BATCH #RT2548 mlg. 09-22-2014

COLLECTION COMPANY RESULTS

Results Received

If a dropdown arrow is present on the formulation shown below, it can be used to toggle through all formulations selected by API for this report. This includes (1) the originally selected formula based on the formulations on file at the time of the audit and (2) any other formulations you have added as part a previous response to this audit. Be aware that findings may still be present on any newly-added formulation and that all findings must be responded to in order to put the audit into a responded state for API to review.

Pick a Formulation:

Test	Method	Reported	1509 Range	Expanded Range	Quick Test	Primary Test	Retest 1	Retest 2	Referee Test	Average
Visc @ 100C - ASTM D445	ASTM D445	10.9	9.30 - 12.49	9.23 - 12.58		10.52				10.52
CCS @ -30C - ASTM D5293	ASTM D5293	6200	<= 6600	<= 7082		5400				5400
MRV_Pumping @ -35C - ASTM D4684	ASTM D4684	25000	<= 60000	<= 81480		20400				20400

Test	Method	Reported	1509 Range	Expanded Range	Quick Test	Primary Test	Retest 1	Retest 2	Referee Test	Average
MRV_Yield Stress - ASTM D4864	ASTM D4684	< 35	< 0	< 35		<35				
HT/HS - ASTM D4683	ASTM D4683	3.1	>= 2.90	>= 2.80		3.06				3.06
NOACK - ASTM D5800_Method B	ASTM D5800_Method B	15	<= 15.00	<= 17.50		11.6				11.6
Zinc_Zn	ASTM D4951	0.085	0.0765 - 0.0978	0.0710 - 0.1048		0.0863				0.0863
Calcium_Ca	ASTM D4951	0.190	0.1710 - 0.2185	0.1650 - 0.2261		0.1885				0.1885
Magnesium_Mg	ASTM D4951	0	<= 0.0001	<= 0.0040		0.0008				0.0008
Sodium_Na	ASTM D4951	0	<= 0.0010	<= 0.0030		<0.0001				
Titanium_Ti	ASTM D4951	0	<= 0.0001	<= 0.0020		<0.0001				
Nitrogen_N - ASTM D5762	ASTM D5762	0.084	0.0756 - 0.0966	0.0559 - 0.1217		0.08				0.08
Boron_B	ASTM D4951	0.018	0.0162 - 0.0207	0.0127 - 0.0242		0.0184				0.0184
Molybdenum_Mo	ASTM D4951	0.0040	0.0034 - 0.0048	0.0028 - 0.0056		0.0046				0.0046
Phosphorus_P	ASTM D4951	0.077	0.0600 - 0.0800	0.0540 - 0.0880		0.077				0.077
Sulfur_S - ASTM D4951	ASTM D4951	0.300	<= 0.5000	<= 0.5610		0.2838				0.2838
Total Base Number - ASTM D2896	ASTM D2896	6.9	6.21 - 7.94	5.78 - 8.49		7				7
Aluminum_Al	ASTM D4951					0.0001				0.0001
Copper_Cu	ASTM D4951					<0.0001				
Silicon_Si	ASTM D4951					0.0004				0.0004
Silver_Ag	ASTM D4951					<0.0001				
Barium_Ba	ASTM D4951					<0.0001				

Test	Method	Reported	1509 Range	Expanded Range	Quick Test	Primary Test	Retest 1	Retest 2	Referee Test	Average
Cadmium_Cd	ASTM D4951					<0.0001				
Chromium_Cr	ASTM D4951					<0.0001				
Iron_Fe	ASTM D4951					<0.0001				
Potassium_K	ASTM D4951					<0.0001				
Manganese_Mn	ASTM D4951					<0.0001				
Nickel_Ni	ASTM D4951					<0.0001				
Lead_Pb	ASTM D4951					<0.0001				
Antimony_Sb	ASTM D4951					<0.0001				
Tin_Sn	ASTM D4951					<0.0001				
Vanadium_V	ASTM D4951					<0.0001				