"Sample (s): Customer Supplied"

TEST REPORT

ATLAS TESTING LABORATORIES, INC.

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HR PO# 23-14387 DATE: 02/09/2023
ATL# 348692

CLIENT: TMS TITANIUM
ATTN: QUALITY CONTROL
12215 KIRKHAM ROAD SUITE 300
POWAY, CA 92064

QTY: 1
LOT# 22-14005
.875" THK
REF WO: 23SO-32007

MATERIAL: 6Al-4V Ti GRADE 5 COND. A SPEC: ASTM-B-265-20A

TENSILE TEST (METHOD: ASTM-E8/22)

SPECIMEN ID	INSPECTION				YIELD		ULTIMATE		ELONGATION IN 4D			REDUCT OF AREA		LOC. OF FRACT (A)
	TEMP	VISUAL INSPECT OK?	ORIG. DIAM.	ORIG. AREA	ACTUAL LOAD IN LBS	KSI	ACTUAL LOAD IN LBS	KSI	ORIG. GAGE LENGTH	ELONG INCHES	PER-CENT	FINAL DIAM.	PER-CENT RofA	
	RT	OK	0.251	0.0495	6741	136	7201	146	1.00	0.150	15	0.190	43	1
MINIMUM REQUIRED:						120		130			10			

Strain Rate: 0.005 inch per inch per minute; Yield determined at 0.2% Offset; Elogation calculated after fracture ATE# 512
(A) 1 = Center Fracture; 2 = Outer Quarter Fracture; 3 = Fractured @ Gage Mark; 4 = Fractured @ Radius; 5 = Material Flaw/Defect

CHEMICAL ANALYSIS: (% BY WEIGHT)

	Al	V	Fe	O.E	O.T	*H	**C	***N	***O
Actual:	6.03	3.7	0.12	<0.1	<0.4	0.005	0.03	0.01	0.20
Min Req:	5.5	3.5	-	-	-	-	-	-	-
Max Req:	6.75	4.5	0.40	0.1	0.4	0.015	0.08	0.05	0.20

METHOD: ASTM-E2371/13 ATE# 202 OES-ARL STD'S: NBS654B, IARM175C
METHOD: ASTM-E1447/09 (2016) ATE# 207 STD'S: AR650 520X *by inert gas fusion*
METHOD: ASTM-E1941/10 (2016) ATE# 204 STD'S: AR591 **by combustion*
METHOD: ASTM-E1409/13 ATE# 207 STD'S: AR641 LOT 321D ***by inert gas fusion*

Remarks: Material as tested, conforms to requirements.

Respectfully Submitted:

Alan W. Hambley, Technical Director

Date: 2/9/2023

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