

# Durkee Testing Laboratories, Inc.

MECHANICAL PROPERTIES REPORT

P.O. BOX 1401•15700 Texaco Street•Paramount, CA 90723 • (562) 531-7111

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ENT BY  
EH

C U S T O M E R	NORTH AMERICA MINING GROUP	CUST P.O.	SHIPPER / W.O.	LAB NO.	LOG NO.
	1601 PACIFIC COAST HIGHWAY	WONG DAZHE JOHN		C7594	282487A
	HERMOSA BEACH, CA 90254	S	ASTM-E-8-09		
		P E C S	DATE REC. 01/25/11		
					DATE COMP. 01/26/11

Item	Quantity	Cust Item	Test	Description	Material
1-01	1	1	MECHANICAL	TENSILE	

RECEIVED: (1) TEST SAMPLE

Reqs.	ID	Actual Size (in)	Actual Area (in <sup>2</sup> )	Yield Load @ .2% (lbs)	Yield Strength @ .2% (psi)	Ultimate Tensile Load (lbs)	Ultimate Tensile Strength (psi)	Elong. Δ in 2.000	Elong. %	Reduced Dimension (in)	Reduction of Area (%)	Note
	TRANS	0.5010	.19714	40200	204000	48900	248000	.140	7.000	.454	18.0	

By: JLM *JLM* For customer information only

The recording of false, fictitious, or fraudulent statements or entries on the test report may be punished as a felony under federal law.

Results provided on this Certified Test Report related only to items tested. This report shall not be reproduced except in full without the written permission of Durkee Testing Laboratories, Inc.

Respectfully Submitted,

By: *Kenneth R. John*  
KENNETH R. JOHN  
GENERAL MANAGER



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	1601 PACIFIC COAST HIGHWAY			WONG DAZHE JOHN		C7594	282487A
	HERMOSA BEACH, CA 90254			ASTM-E-23-07ae1			
							DATE REC. 01/25/11
							DATE COMP. 01/26/11

Item	Quantity	Cust Item	Test	Description	Material
1-02	3	1	MECHANICAL	CHARPY	

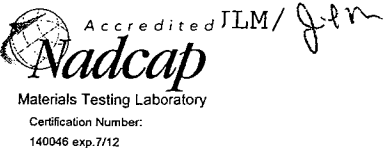
## MECHANICAL PROPERTIES TEST REPORT

RECEIVED: (1) TEST SAMPLE

CHARPY "V" NOTCH IMPACT TEST @ 70°F

TRANSVERSE 10mm X 10mm	IMPACT VALUES	LATERAL EXPANSION	SHEAR FRACTURE
1	9.00 ft/lbs	.006"	<10%
2	10.00 ft/lbs	.004"	<10%
3	8.00 ft/lbs	.004"	<10%
<b>AVERAGE:</b>	9.00 ft/lbs		

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	1601 PACIFIC COAST HIGHWAY			WONG DAZHE JOHN		C7594	282487A
	HERMOSA BEACH, CA 90254			S ASTM-E-112-96 (2004)	ASTM-E-3-01		
				P			DATE REC.
			E			01/25/11	
			C			DATE COMP.	
			S			01/26/11	

Item	Quantity	Cust Item	Test	Description	Material
1-03	1	1	METALLURGICAL	MICRO/GRAIN SIZE	

## METALLURGICAL EVALUATION TEST REPORT

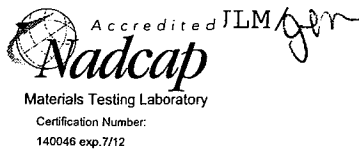
RECEIVED: (1) TEST SAMPLE

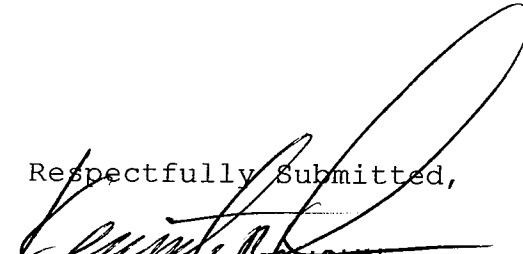
MICROSTRUCTURE: CONSISTS OF FINE MARTENSITE  
WITH SOME FERRITE.

ETCH: 2% NITAL, 12 SECS  
MAGNIFICATION: 100-500x

GRAIN SIZE @ 100x: #6.5

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C U S T O M E R	NORTH AMERICA MINING GROUP 1601 PACIFIC COAST HIGHWAY HERMOSA BEACH, CA 90254	CUST P.O.	SHIPPER / W.O.	LAB NO.	LOG NO.
		WONG DAZHE JOHN		C7594	282487A
		S ASTM-E-10-10			DATE REC.
		P E C S			01/25/11
					DATE COMP.
					01/26/11

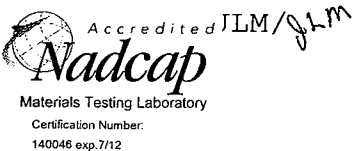
Item	Quantity	Cust Item	Test	Description	Material
1-04	1	1	METALLURGICAL	HARDNESS	

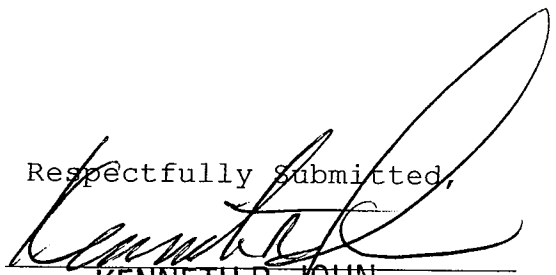
## METALLURGICAL EVALUATION TEST REPORT

RECEIVED: (1) TEST SAMPLE

HARDNESS: HBW 514 (HRC 52.1)

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		WONG DAZHE JOHN		C7594	282487A	
		S				DATE REC.
		P				01/25/11
E				DATE COMP.		
C				01/26/11		
S						

Item	Quantity	Cust Item	Test	Description	Material
1-05	1	1	OILS / SOLUTIONS	DENSITY	

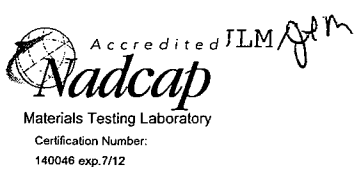
## CERTIFIED TEST REPORT

RECEIVED: (1) TEST SAMPLE

SIZE: 1/2 X 3/4 X THICKNESS

DENSITY: 7.81 g/cc

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