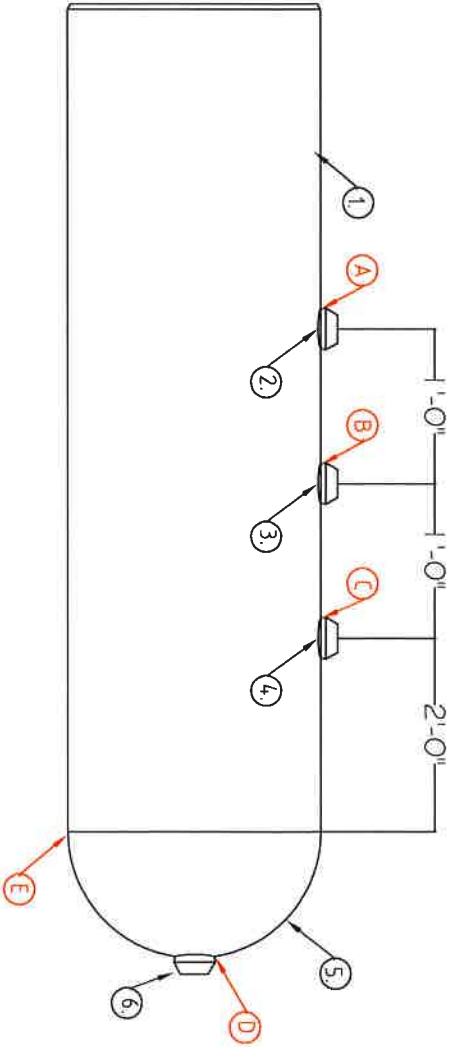


MATERIAL	HEAT
1. 10" PIPE	GW0119
2. 1" TOL	50313
3. 2" TOL	50717
4. 2" TOL	50348
5. 10" CAP	933940/Q1
6. 2" TOL FLAT 6M	1BUAN

XRAY
A MT-26
B MT-27
C MT-28
D MT-46
E XR-23

SN# 1 OTESTOG



PIPE OD : 10.75"
 PIPE WALL THICKNESS: 0.375"
 PIPE GRADE: X-42
 MAX HYDRO. PRESSURE: 2225 psi

THIS DRAWING CANNOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN
 CONSENT OF RIDGE RUNNER PIPELINE SERVICES LLC.
 51 SCOTT'S RUN ROAD MAIDSVILLE, WV 26541

PROJECT	DRAWING	DATE	TITLE
RIDGE RUNNER PIPELINE SERVICES	AS-BUILT DATA	11/27/19	10" WELD ON TEST HEADER
	PAGE 1 OF 1		



2669 MARTIN LUTHER KING
BLVD
YOUNGSTOWN, OH 44510

VALLOUREC STAR, LP
Seamless Tubular Products

Certified Test Report
02/09/2017

CUSTOMER: MCJUNKIN RED MAN CORPORATION
SILN: GW0119
OD: 10.750
WALL: 0.365
GRADE: APT 5L X42/B PSL 2 45th Ed., July 1, 2013
LBS/FT: 40.52
PEB:
DRL:
LP:
Customer PO-Rev#: 57N0023508-00
ORDER LINE #: *-107280-001
W/O NO:
LOT NUMBER:

DESC: SEAMLESS HOT ROLLED
ASME SA538-2015; V&M Star's QA program meets the requirements of DIN EN 10204-2004 Type 3.1.

COMMENT: Melted and Manufactured in Ypsch, OH USA
This pipe is also manufactured to: ASTM A106B/C-15; ASTM A538-12; ASME SA106B/C-2015; ASME SA538-2015; V&M Star's QA program meets the requirements of DIN EN 10204-2004 Type 3.1.
Schedules NACE MR0175/ISO15156-2015 and ANSI/NACE MR0103/ISO17945:2015
No repair welding has been conducted. Material is free from Mercury.

MECHANICAL PROPERTIES		ORIENTATION: LONGITUDINAL		TYPE: STRIP					
TENSILE SIZE		SPECIMEN CROSS SECTION		STRENGTH KSI		ELONGATION		SUPPLEMENTAL REQUIREMENT	
IT-POS	WIDTH(IN)	THICK(IN)	AREA(SQIN)	YIELD	TENSILE	Y/T RATIO	GAGE LENGTH	% ELONG	HARDNESS:
1)	1.509	0.369	0.5588	50.3	75.6	0.66	2	41.0	79 HRBW AVG
2)									FLATTENING: PASSED
3)									NACE TEST: MR0175 / ISO15156-2
4)									GRAIN SIZE: OTHER:
5)									MIN: COLLAPSE: AS QUENCHED:

MAX INTERNAL YIELD (psi): 2971
INSPECTION:
HYDROSTATIC TEST (psi): 2500 for a 5 second minimum

Q/T: AF: 0 AT: 0 TF: 0 TT: 0
DRIFT PLUG SIZE:

CHEMICAL ANALYSIS: 61M Electromagnetic Inspected. Reference Standard was a test joint with 10% OD Longitudinal and Transverse notches.

WT%	C	Mn	P	S	Si	Ca	Ni	Cr	Mo	Sm	Nb	V	Al	Ca	B	Ti	N	CE
HEAT	0.21	0.69	0.008	0.005	0.21	0.20	0.07	0.08	0.02	0.011	0.000	0.002	0.029	0.0018	0.0002	0.002	0.0091	0.37
PRODUCT 1)	0.21	0.69	0.008	0.005	0.21	0.19	0.07	0.08	0.02	0.010	0.000	0.002	0.031	0.0017	0.0001	0.002	0.0074	0.36
PRODUCT 2)	0.20	0.69	0.008	0.006	0.21	0.19	0.07	0.08	0.02	0.010	0.000	0.002	0.030	0.0014	0.0002	0.002	0.0073	0.35
PRODUCT 3)																		

CHARPY IMPACT TESTING

DIRECTION TRANS		FTLBS		SHEAR	
TEST #	MIN	ACTUAL	MIN	ACTUAL	
1	11	34	NR	35	
2	11	35	NR	35	
3	11	36	NR	35	
AVG	15	35	NR	35	
1					
2					
3					
AVG					

TEMP (Deg.F) LOCATION

1	32	
2		
3		
AVG		

SIZE 3/4
NOTCH V

STAMPED: *[Signature]*
DATE APPROVED: 02/08/2017
NAME: JOE DOLAK
TITLE: QA MANAGER - VSTAR OHIO

MM - Not Measured
NR - Not Required

This material has been produced and tested in accordance with the requirements of applicable specifications unless otherwise listed below. We hereby certify that the above test results are representative of those contained in the records of the company. Any modification to this certification as provided by Vallourec Star, without the expressed written consent of Vallourec Star negates the validity of the test report. Vallourec Star is not responsible for the inability of the material to meet specific applications.



ANWYL
INTERNATIONAL
Building Connections That Last

Certificate of Test

ITEM INFORMATION

Part Number: 0766260483 Description: 36-3X1 3000# THD UNIV ANVILET
 Heat Code: 50313 Heat Number: 50313
 Reference No.:
 Part Specification: ASTM A105/A105M-14/ASME SA105-14 NACE MR 0103/MR 0175/SO15156-2

CHEMICAL ANALYSIS %

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb/Nb	Al	Co	CE
0.200	1.000	0.006	0.023	0.240	0.080	0.030	0.060	0.006	0.003	0.0140	0.036	0.002	0.388

CE (LONG FORMULA) = 0.388

PHYSICAL PROPERTIES

Yield PSI	Yield MPA	Tensile PSI	Tensile MPA	Elongation	REDUCTION OF AREA %	HARDNESS 1 BHN/HRC	HARDNESS 2 BHN/HRC
48588	334	73705	507	35.30	55.02	135	135

SUPPLEMENTAL INFORMATION

THE ORIGINAL MANUFACTURER'S CERTIFICATION MEETS THE REQUIREMENTS OF EN 10204 TYPE 3.1. WE CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF THE MILL CERTIFICATE. ISSUED BY THE MANUFACTURER OF THE STEEL EMPLOYED OR THE LABORATORY WHICH HAS DETERMINED IT, AS RETAINED IN THE RECORDS OF THE COMPANY. WE MAKE NO REPRESENTATION BEYOND THOSE OF THE MANUFACTURER OR ITS AGENT.



Manufacturer of Piping and Pressure Vessel Components
 4404 Haygood St - Houston, TX 77022
 Phone: 713-695-3633 Fax: 713-695-3528
 A Bonney Forge Company

Sold To: MRC GLOBAL (CANADA) ULC
 502-25 AVENUE
 NISKU AB T9E 0K6
 Canada

MTR #: 349,138

PO #: C726-526123-0B5

Sales Order #: C001809657

Date: 09/11/2018

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment. No welding performed.

We certify that the contents of this report are correct and accurate, and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard, and that the material conforms to the dimensional requirements of the order. This document is in accordance with EN10204 3.1.

Certified Material Test Report

Heat Code: 50317

Material: A350 18 LF2 CL1

Item	Quantity	Description
3	6	18 S40 X 2 STD BWP A350LF2 CL1

23	8	36 - 8 X 2 STD BWP A350LF2 CL1
----	---	-----------------------------------

OA LINE 65

Chemical Composition

Ladle	B	C	Co	CR	CU	MN	MO	Nb
	0.0004	0.1900	0.002	0.04	0.06	1.030	0.007	0.012
	NI	P	S	SI	V			
	0.030	0.006	0.020	0.250	0.003			
Carbon Equivalency:	Ladle		0.38					

Product	B	C	Co	CR	CU	MN	MO	NB
	<0.0002	0.1880	<0.001	0.03	0.06	1.030	0.008	0.014
	NI	P	S	SI	Ti	V		
	0.021	0.003	0.012	0.256	0.001	<0.001		
Carbon Equivalency:	Product		0.37					

Product	Tensile PSI	Yield PSI	Elong %	RA %	Hardness
	72,000	48,700	34.00	70.00	140 BHN
Charpy V-Notch Properties:			Test Temperature:		-50 F
	FT LBS: 60/36/62	% Shear: NB/NB/NB			MLE: NB/NB/NB

MILL/COUNTRY OF ORIGIN: ARCELORMITTAL (CANADA) - HEAT#C129554/BONNEY FORGE (USA) - LOT#50317

PARTS ARE NORMALIZED AT 1650°F FOR A MINIMUM OF 1 HOUR OR FOR 1/2 HOUR PER 1" OF THICKNESS, WHICH IS GREATER, & THEN AIR COOLED. THIS PROCESS IS IN CONFORMANCE TO ASTM A105/A350 NORMALIZING REQUIREMENTS.

Marie Dehmer
 Quality Assurance Representative



MILL TEST REPORTS

Bonney Forge
14496 Croghan Pike
Mt. Union, PA 17066

CERTIFIED MILL TEST REPORT

MRC 8/3/2018

LOT NO.
50348

CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS
10->8 X 2" 3M A105 Thredolet™ Threaded

C	0.190	MN	0.990	P	0.010	S	0.016	SI	0.250
NI	0.040	CR	0.070	MO	0.009	CU	0.180	CO	0.004
V	0.003	AL	0.022	Nb	0.012				

CE(LONG FORMULA) = 0.386

T/S(PSI) 79901 Y/S(PSI) 52716 EL(%) 35.300 RA(%) 61.120

BRINELL HARDNESS 147, 147

[Click here for Original Steel Mill Certification](#)

1. CERTIFYING ASTM A105-14 / ASME SA105-17 EDITION.
2. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MR0175/ISO 15156-2.
3. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT.
4. THE ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.

THIS DOCUMENT HAS BEEN ELECTRONICALLY SUBMITTED.

Cancel	Logout
--------	--------

Heat Number: 50348, Customer PO Number: 20" & 10" TEST HEADS, PO Line: , Sales Order Number: 9856359, Sales Line: 0006-00000
MRC Global Part Number: 18424347, MRC Global Part Description: 10->8 X 2.3000# BLK CS THREDOLET MSS Sp97 SA105



Via Roma 150, 29027 Podenzano (PC), Italy
 mail: info@tectubiraccordi.com
 Tel: ++39 0523555111
 Fax: ++39 0523555318

INSPECTION CERTIFICATE EN 10204 - 2004 3.1 3.2

NUMBER 108570 -3
 REVISION 3
 DATE 07/02/2017

CLIENT:
 ALLED FITTING L.P.

ORDER:

JOB:

CLIENT ITEM	ITEM	Qty	DESCRIPTION	HEAT CODE	SPECIFICATION	MATERIAL	STEEL MAKER	CERT.N.	RAW MATERIAL
214	214	25	CAP BW 10" SCH. STD - SMLS	933940 - QT	ASTM A.860/A.860M-13 MSS SP-75 Edition 2008	WPHY65	VOESTALPINE	Q0389115	PLATE

BY LADLE ANALYSIS * BY CHECK ANALYSIS **

HEAT	Test	C	Mn	Si	P	S	Cr	Ni	TI	Cu	V	Nb	Mo	Al	V+NB	Ce	B
933940 - QT	min.	0.20	1.45	0.40	0.03	0.01	0.30	0.50	0.05	0.35	0.10	0.04	0.25	0.06	0.12	0.42	0.001
	max.	0.077	1.390	0.380	0.001	0.001	0.033	0.270	0.001	0.161	0.051	0.016	0.008	0.038	0.067	0.356	0.0002
933940 - QT	LABE- CHECK**	0.079	1.350	0.350	0.006	0.001	0.032	0.280	0.001	0.166	0.054	0.017	0.009	0.039	0.071	0.353	0.0002

The chemical values and tensile properties are a true and correct copy of the certificate issued by the supplier of raw materials or by the laboratory which has determined them.

ON RAW MATERIAL * ON FINISHED FITTINGS ** SUPPLEMENTARY REQ. ***

MECHANICAL PROPERTIES

Tensile Test	Temp. °C:	+20		Impact Test			Temp. °C: -46	KCV (Joule)	Shear Area %	LatExp. mm	Hardness HB	Red Area %
		Y.S. MPA	U.T.S. MPA	%	Senso Direct.	Dim. Sample						
	min.	450	530	20			34			min. 0.64	min. 235	
	max.	555	705				40				max. 235	
247877**		495	606	28	T	10X10						190-200

REMARKS
 Melting process: Electric Furnace
 Manufacturing method: Hot Formed (780°C + 980°C)
 Heat treatment: Quenching at 920°C (1H/1" WTH) water cooling
 Tempering at 680°C (1H/1" WTH) still air cooling
 Visual and dimensional examination in accordance with:
 ASME B16.9 - Ed. 2012
 ASME B16.25 - Ed. 2012
 Material according to:
 NACE MR 01.75 - ISO 15156 Ed. 2009
 UT EXAMINATION PERFORMED WITH SATISFACTORY RESULT

ACTIVITIES	CERTIFICATE RESULT	ACTIVITIES	CERTIFICATE RESULT

Work Inspector: _____
 Customer Inspector: _____
 Third part Inspector: _____



DATE _____ SIGNATURE _____ DATE _____ SIGNATURE _____

We hereby certify that the materials listed below have been manufactured in compliance with the order and mentioned rules.

EU DIRECTIVE 97/23/EC ANNEXE I SECT 4.3 & 7.5



ISO 9001:2008
Certified

SOLD TO: MRC N SALT LAKE-UT
CUSTOMER'S ORDER NO.: C1078894036B1
WOI S/O #: C000085286

WE CERTIFY THAT THE MATERIAL FURNISHED ON THIS ORDER COMPLIES IN ALL RESPECTS WITH THE SPECIFICATIONS AS STATED AND THAT THIS CORRECT INFORMATION IS AS CONTAINED IN OUR RECORDS.
WOI PRODUCTS ARE MANUFACTURED IN THE UNITED STATES OF AMERICA

MATERIAL TEST REPORT

LN	ITEM	QUANTITY	DESCRIPTION	HEAT CODE
1	2SWB9M1053	2	36 - 8 X 2 9M SW BRANCHETTE A105 IAW MSS SP-97	1BUAN

CHEMICAL COMPOSITIONS

LADLE

C	Mn	P	S	Si	Ni	Cr	Mo	Cu	V
.28	.86	.011	.020	.26	.07	.10	.03	.16	.002

PRODUCT

MECHANICAL COMPOSITION

	TENSILE PSI	YIELD PSI	ELONG %	RA %	BHN	BHN
MILL						
PRODUCT	80200	49400	28.2	61.5	143	143

COMMENTS

CE: .465
EN 10204 3.1
IAW ASTM A105-15 / ASME SA105-15
HEAT TREATMENT
NORMALIZED

BY 
QUALITY ASSURANCE CONTROL
DEPARTMENT

DATE: 06/11/2018



THIS PRODUCT HAS NOT COME IN DIRECT CONTACT WITH MERCURY OR ANY OF IT'S COMPOUNDS, NOR WITH ANY MERCURY CONTAINING DEVICE EMPLOYING A SINGLE BOUNDARY OF CONTAINMENT. THERE HAS BEEN NO REPAIR BY WELDING ON THIS MATERIAL.

Waggoner & Associates

Daily Radiographic Log

P.O. Box 307 West Monroe, La 71294
 Phone: 1-800-894-3230 Fax: 318-324-8816
 Email: waggonerndt@waggonerndt.com

PAGE 1 OF 2
 REPORT # 1
 RIG # 9537

TERMS AND ABBREVIATION

I.P. -Inadequate Penetration P. -Porosity
 I.F. -Incomplete Fusion H.B. -Hollow Bead
 B.T. -Burn Through C.R. -Crack
 B.T.A. - Burn Through Areas I.U. -Internal Undercut
 S.I. -Slag Inclusions O.U. -Outside Undercut
 S.L. -Slag Line(s) I.C. -Internal Concavity

JOB DESCRIPTION Test headers

JOB, WO, AFE #, PO # ETC. PO-2018 1775

CUSTOMER NAME Ridge runner **DAY** Mon **DATE** 11/19/18

BILLING ADDRESS 51 Scott's Run rd. **LOCATION** Maidsville

CITY Maidsville **STATE** WV **ZIP** 26541 **STATE** West Virginia

ATTN: _____

LOCATIONS

R.S. -RIGHT OF WAY Side B. -Bottom
 D.S. -Ditch Side T.Q. -Top Quarter
 T. -Top B.Q. -Bottom Quarter

X-RAY NO.	WITHIN CODE	PIPE SIZE	FILM SIZE	INSP. TYPE	NO. EXP.	WALL THICK.	GAMMA/ X-RAY	REMARKS
1. Xr-1	YES	6.625 in	70 mm	RT	3	0.280 in	GAMMA	
2. Xr-2	YES	6.625 in	70 mm	RT	3	0.280 in	GAMMA	
3. Xr-3	YES	6.625 in	70 mm	RT	3	0.280 in	GAMMA	
4. Xr-4	YES	6.625 in	70 mm	RT	3	0.280 in	GAMMA	
5. Xr-5	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
6. Xr-6	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
7. Xr-7	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
8. Xr-8	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
9. Xr-9	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
10. Xr-10	NO	4.5 in	70 mm	RT	3	0.237 in	GAMMA	Porosity 2-0 view
11. Xr-11	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
12. Xr-12	YES	4.5 in	70 mm	RT	3	0.237 in	GAMMA	
13. Xr-13	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
14. Xr-14	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
15. Xr-15	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
16. Xr-16	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
17. Xr-17	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
18. Xr-18	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
19. Xr-19	YES	2.375 in	70 mm	RT	4	0.218 in	GAMMA	
20. Xr-20	NO	2.375 in	70 mm	RT	4	0.218 in	GAMMA	Porosity 0-A view
21. XR-21	YES	8.625 in	70 mm	RT	3	0.322 in	GAMMA	
22. XR-22	YES	10.75 in	70 mm	RT	3	0.375 in	GAMMA	
23. XR-23	YES	10.75 in	70 mm	RT	3	0.375 in	GAMMA	
24. XR-24	YES	20 in	70 mm	RT	3	0.500 in	GAMMA	
25. XR-25	YES	20 in	70 mm	RT	3	0.500 in	GAMMA	
26. XR-26	YES	24 in	70 mm	RT	3	0.500 in	GAMMA	
27. XR-27	YES	24 in	70 mm	RT	3	0.500 in	GAMMA	
28. XR-28	YES	24 in	70 mm	RT	3	0.500 in	GAMMA	
29. XR-29	YES	24 in	70 mm	RT	3	0.500 in	GAMMA	
30.								
31. MT-1	YES	1 in	N/a	MT				
32. MT-2	YES	2 in	N/a	MT				
33. MT-3	YES	2 in	N/a	MT				
34. MT-4	YES	2 in	N/a	MT				
35. MT-5	YES	2 in	N/a	MT				
36. MT-6	YES	1 in	N/a	MT				
37. MT-7	YES	4 in	N/a	MT				
38. MT-8	YES	4 in	N/a	MT				
39. MT-9	YES	2 in	N/a	MT				
40. MT-10	YES	2 in	N/a	MT				

PIPELINE **STATION**

JOB COMPLETE Yes

DISPOSITION OF FILM Turned In

GRADED ACCORDING TO API 1104

PROCEDURES TURNED IN Yes

TECH. CERTIFICATION TURNED IN Yes

RT Yes MT Yes UT PT

ATV No 2971 **ATV#** 2971 **Crawler No** **# Mag Cans** 4

Pulling Mach No **B. Hardness No** **WT Trailer No**

UNIT SIZE 2

UNITS REMAINING OVERNIGHT Yes


FROM Office **TO** Job

MILEAGE DESCRIPTION Round Trip

MILEAGE 211

TOTAL HRS UTILIZED 10

REFERENCE # _____ **Brandon bever** **PRINT NAME (APPROVED BY)**

X  **SIGNATURE (APPROVED BY)**

11/19/18 **DATE**

We assume no responsibility for losses of any kind due to our interpretation of the quality of the materials submitted (All data and information will be held strictly confidential)

Rev. 2/14

Test headers

Date: 11/19/18

Report: 1

Job: PO-2018 1775

X-RAY NO.	WITHIN CODE	PIPE SIZE	FILM SIZE	INSP. TYPE	NO. EXP.	WALL THICK.	GAMMA/ X-RAY	REMARKS
41.	MT-11	YES	4 in	N/a	MT			
42.	MT-12	YES	4 in	N/a	MT			
43.	MT-13	YES	2 in	N/a	MT			
44.	MT-14	YES	2 in	N/a	MT			
45.	MT-15	YES	4 in	N/a	MT			
46.	MT-16	YES	2 in	N/a	MT			
47.	MT-17	YES	2 in	N/a	MT			
48.	MT-18	YES	2 in	N/a	MT			
49.	MT-19	YES	2 in	N/a	MT			
50.	MT-20	YES	2 in	N/a	MT			
51.	MT-21	YES	4 in	N/a	MT			
52.	MT-22	YES	4 in	N/a	MT			
53.	MT-23	YES	2 in	N/a	MT			
54.	MT-24	YES	2 in	N/a	MT			
55.	MT-25	YES	1 in	N/a	MT			
56.	MT-26	YES	1 in	N/a	MT			
57.	MT-27	YES	2 in	N/a	MT			
58.	MT-28	YES	2 in	N/a	MT			
59.	MT-29	YES	2 in	N/a	MT			
60.	MT-30	YES	2 in	N/a	MT			
61.	MT-31	YES	1 in	N/a	MT			
62.	MT-32	YES	2 in	N/a	MT			
63.	MT-33	YES	2 in	N/a	MT			
64.	MT-34	YES	2 in	N/a	MT			
65.	MT-35	YES	2 in	N/a	MT			
66.	MT-36	YES	1 in	N/a	MT			
67.	MT-37	YES	2 in	N/a	MT			
68.	MT-38	YES	2 in	N/a	MT			
69.	MT-39	YES	2 in	N/a	MT			
70.	MT-40	YES	2 in	N/a	MT			
71.	MT-41	YES	1 in	N/a	MT			
72.	MT-42	YES	1 in	N/a	MT			
73.	MT-43	YES	2 in	N/a	MT			
74.	MT-44	YES	2 in	N/a	MT			
75.	MT-45	YES	2 in	N/a	MT			
76.	MT-46	YES	2 in	N/a	MT			
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103.			in					
104.			in					
105.			in					

REFERENCE # _____