



ENTERED JUN 10 2013

Echo NDE Inc.
53A Burnt Park Drive
Red Deer, AB
T4P 0J7
Phone: (403) 347-7042
Fax: (403) 347-7052

PENN WEST EXPLORATION LTD.

VESSEL & STORAGE TANK INSPECTIONS

11-31-111-04 W6M
06-28-111-04 W6M
16-32-110-04 W6M

**Sousa Gas Plant, Compressor Station & Field
Location**

February 2013



Echo NDE Inc.
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Procedure for calculating retirement thickness.

Standard retirement thickness calculations are performed as follows:

Retirement thickness (T-Min) = nominal thickness – corrosion allowance – mill tolerance

Mill Tolerance:

Mill tolerances for materials are stated in the ASTM material specifications.

Corrosion Allowance:

When noted on the manufacturer's data report (U-1A).

If U-1A not available we use the given information from the nameplate.

Unless otherwise stated, or given off a line designation table, no corrosion allowance is assumed.

In the event that a thickness measurement location (TML) is flagged as a caution by the above methods, a conservative calculation is performed and included in this report.

For Vessels:

The T-Min calculation is performed as per ASME Sect. VIII, Div. 1, 1989 Code Edition, using material stress values with a safety factor of 4.0 from ASME Sect. II.

For caution items outside this scope, additional comments, recommendations, or notes will be included with this report.

For Piping:

The T-Min calculation for piping is performed to determine the minimum allowable uniform wall thickness of piping when the design code input is one of the following:

- B31.1 – Power Piping
- B31.3 – Plant Piping
- B31.4 – Liquid Transport Piping
- B31.8 – Gas Transport Piping
- B31.11 – Slurry Transportation Piping

These design codes represent ANSI Standard and utilize information relative to each standard for material code, allowable stress (based on temperature) and structural requirements

INSPECTION SUMMARY

LSD	A#	Serial Number	Equipment Name	Inspection Last	Inspection Method	Inspection Interval	Next Inspection	Comments
11-31-111-04 W6M								
	3133196	94133-01	1st Stage Suction Scrubber	February 2013				
	3133220	94133-04	1st Stage Suction Bottle	February 2013				
	3133237	94133-05	1st Stage Discharge Bottle	February 2013				
	3133206	94133-02	2nd Stage Suction Scrubber	February 2013				
	3133244	94133-06	2nd Stage Suction Bottle	February 2013				
	3133251	94133-07	2nd Stage Discharge Bottle	February 2013				
	3133213	94133-03	3rd Stage Suction Scrubber	February 2013				
	3133268	94133-08	3rd Stage Suction Bottle	February 2013				
	3133275	94133-09	3rd Stage Discharge Bottle	February 2013				
	495115	945189.3	1st Stage Cooler	February 2013				NB# 26987
	495114	945189.4	2nd Stage Cooler	February 2013				NB# 26988
	495113	945189.5	3rd Stage Cooler	February 2013				NB# 26989
	3152766	5783-20	Contactora	February 2013				
	N/A	H 24146	Filter	February 2013				
	N/A	8501E	Filter	February 2013				
	N/A	5783-10	Line Heater	February 2013				
	3142408	5783-21	Fuel Gas Scrubber	February 2013				
	438813	WF-97-767	Separator	February 2013				
	N/A	JL99-085	Water Ejection Filter	February 2013				
	457190	00-016	Separator	February 2013				
	489761	2003220	Exchanger	February 2013				
	489762	2003221	Exchanger	February 2013				
	489760	2003219	Exchanger	February 2013				
	414089	97-913-3	Separator	February 2013				
	233317	1385-86	Fuel Gas Scrubber	February 2013				
06-28-111-04 W6M								
	3019566	V-21430	Separator	February 2013				
	N/A	N/A	Fuel Gas Scrubber	February 2013				Tag# PWV02115

VE - Visual External Examination
 VI - Visual Internal Examination
 RT - Radiography Examination

UT - Ultrasonic Examination
 MT - Magnetic Particle Examination
 PT - Liquid Penetrant Examination



INSPECTION SUMMARY

LSD	A#	Serial Number	Equipment Name	Inspection Last	Inspection Method	Inspection Interval	Next Inspection	Comments
	N/A	S-8163	Fuel Gas Scrubber	February 2013				
	N/A	L25-002-97	Line Heater	February 2013				
16-32-110-04 W6M								
	542163	06-006-5808	Filter	February 2013				
	N/A	106.11	Fuel Gas Scrubber	February 2013				
	551356	1037	Separator	February 2013				
	N/A	N/A	Air Receiver	February 2013				NB# 764195
	N/A	122B	Filter	February 2013				
	450608	7416-03	Line Heater	February 2013				
	N/A	JL2012-049	Filter	February 2013				

VE - Visual External Examination
 VI - Visual Internal Examination
 RT - Radiography Examination

UT - Ultrasonic Examination
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CORROSION SURVEY DAILY FIELD SUMMARY

DATE:	FEBRUARY 4/2013	REPORT #	CGM-130204	PAGE:	1 OF 1
CLIENT:	PENNWEST				
AREA:	NORTHERN ALBERTA	FIELD:	SOUSA	REQUESTED BY (Chief / Contact):	JERRAD/MIKE

TEST PARAMETERS

UT SET											
Manufacturer:	GE	Model:	GE DMS/USM GO	Serial Number:	USMGO11105174	Calibration Date:	JUNE 15/2012				
STEP BLOCK											
Range:	1.000"	Serial #:	11-4184	Couplant:	UT-X	Cable Length:	80"	Response Height:	80% FSH		
TEST BLOCK											
Type:		Serial #:		Reflector Type:		Reflector Size:		Reflector Depth:			
PULSER											
Manufacturer:	Stresstel	Model:		Serial Number:	01YB62	Type:	Dual	Freq (MHz):	5.0	Size:	0.250"
Peak <input type="checkbox"/>		Gate Level:	80% FSH	CAL. dB:	60	Procedure:	UT-1	Technician:	GREG MERCER		
Edge <input checked="" type="checkbox"/>				REF. dB:		Specification:	ASME VIII DIV.1/B31.3	Assistant:	CONNOR SIBBET		

EQUIPMENT INSPECTED

DATE	LOCATION / LSD	VESSEL IDs (A# , s/n...) - list all vessels inspected
FEB.4/2013	N/A	(8REG, 4OT, 2 X \$150, 915KM). DROVE FROM RED DEER TO HIGH LEVEL. (SNOWY/ICY ROAD CONDITIONS IN SOME AREAS).
FEB.5/2013	11-31-111-04W6M	(8REG, 4OT, 2 X \$150, 215KM). A3133196, A3133220, A3133237, A3133206, A3133244, A3133251, A3133213, A3133268, A3133275, A0495114, A0495115, A0495113, A3152766, S/N H24146, S/N 8501E, S/N 5783-10, A3142408, A0438813 & S/N JL99-085.
FEB.6/2013	11-31-111-04W6M	(8REG, 4OT, 2 X \$150, 225KM). A0457190, A0489761, A0489762, A0489760, A0414089 & A0233317.
FEB.6/2013	06-28-111-04W6M	A3019566, PWV#02115, S/N S-8163 & S/N L25-002-97.
FEB.6/2013	16-32-110-04W6M	A0542163, S/N 106.11, A0551356, NATIONAL BOARD # 764195, S/N 122B, A0450608 & S/N JL2012-049.

Comments / Miscellaneous Charges:			
	Charges - where applicable	Total	Chargeable
	Units Scanned	36	
	Bottom Head Scans		
	Bottle MPI		
	Regular Hours	24	24
	Overtime Hours	12	12
Customer Representative:	Kilometers	1355	1355
Technician: <i>Gmja</i>	MPI Consumables		
CGSB / SNT-TC-1A UTI/MTII # 11987	LOA	6 X \$150	6 X \$150
Confirmed All Dwgs / Pics Reviewed <input checked="" type="checkbox"/>	By: CONNOR SIBBET		
Confirmed All Static Data Reviewed <input checked="" type="checkbox"/>	By: CONNOR SIBBET		
Confirmed All Readings Reviewed <input checked="" type="checkbox"/>	By: GREG MERCER		

Report for: Penn West Petroleum Ltd.
Presented by: Echo NDE Inc.
Address: 53A Burnt Park Drive Red Deer, AB T4P 0J7
Telephone: (403)347-7042 Fax: (403)347-7052

Corrosion Monitoring Caution/Action TML Report
Includes both 0 C.A. and Non-0 C.A. TMLs

Report Date: 03/14/2013 09:04:01

(Report in Millimeters, Corrosion Rates in mm/Yr)

Unit: PENNWEST
Eq/Circ ID: *
Eq Type: 13-016
Class:
RBI:

Caution TML Logic: Rep TML CR > 0.381 OR TML Life < 1.00 years.
Action TML Logic: TML Life is < 0.0

Unit	Eq/Circ ID	TML / Tube	Location / Elevation	Last Thick	Act TML	Retirement Thickness	Rep TML CR	TML Inspection Date	TML Retirement Date
PENNWEST	0414089	5.03	2" ELBOW	4.78	*	4.85 U	0.046	06/19/2011	06/19/2011
PENNWEST	0414089	5.04	2" ELBOW	4.75	*	4.85 U	0.048	01/10/2011	01/10/2011
PENNWEST	0414089	5.05	2" ELBOW	4.72	*	4.85 U	0.051	08/18/2010	08/18/2010
PENNWEST	0414089	6.02	3" ELBOW	6.65	*	6.67 U	0.058	11/03/2012	11/03/2012
PENNWEST	0414089	6.03	3" ELBOW	6.25	*	6.67 U	0.084	01/27/2008	01/27/2008
PENNWEST	0414089	6.04	3" ELBOW	6.20	*	6.67 U	0.086	08/19/2007	08/19/2007
PENNWEST	0414089	6.05	3" ELBOW	6.50	*	6.67 U	0.069	08/28/2010	08/28/2010
PENNWEST	0438813	14.12	BOOT SHELL	24.97	*	29.90 U	0.455	04/03/2002	04/03/2002
PENNWEST	0438813	20.02	2" ELBOW	3.40	*	3.42 U	0.033	08/09/2012	08/09/2012
PENNWEST	0450608	14.01	BOOT HEAD	19.35	*	29.90 U	0.947	12/21/2001	12/21/2001
PENNWEST	0450608	14.02	BOOT HEAD	19.10	*	29.90 U	0.965	11/29/2001	11/29/2001
PENNWEST	0450608	14.03	BOOT HEAD	19.05	*	29.90 U	0.970	12/02/2001	12/02/2001
PENNWEST	0450608	14.04	BOOT HEAD	19.00	*	29.90 U	0.973	11/23/2001	11/23/2001
PENNWEST	0450608	14.05	BOOT HEAD	18.90	*	29.90 U	0.980	11/17/2001	11/17/2001
PENNWEST	0450608	14.06	BOOT HEAD	18.92	*	29.90 U	0.978	11/16/2001	11/16/2001
PENNWEST	0450608	17.01	2" ELBOW	3.38	*	3.42 U	0.041	01/27/2012	01/27/2012
PENNWEST	0450608	17.02	2" ELBOW	3.35	*	3.42 U	0.043	07/19/2011	07/19/2011
PENNWEST	0450608	17.04	2" ELBOW	3.33	*	3.42 U	0.046	01/28/2011	01/28/2011
PENNWEST	0450608	17.05	2" ELBOW	3.28	*	3.42 U	0.048	02/17/2010	02/17/2010
PENNWEST	0489761	1.01	2" ELBOW	4.57	*	4.85 U	0.097	03/22/2010	03/22/2010
PENNWEST	0489761	1.02	2" ELBOW	4.32	*	4.85 U	0.122	09/26/2008	09/26/2008
PENNWEST	0489761	1.03	2" ELBOW	4.44	*	4.85 U	0.109	05/24/2009	05/24/2009
PENNWEST	0489761	1.04	2" ELBOW	4.47	*	4.85 U	0.107	07/17/2009	07/17/2009
PENNWEST	0489761	1.05	2" ELBOW	4.60	*	4.85 U	0.094	05/31/2010	05/31/2010
PENNWEST	0489761	2.04	2" ELBOW	4.90	*	4.85 U	0.064	07/06/2013	12/03/2013
PENNWEST	0489761	3.01	2" ELBOW	4.42	*	4.85 U	0.112	04/01/2009	04/01/2009
PENNWEST	0489761	3.02	2" ELBOW	4.39	*	4.85 U	0.114	02/10/2009	02/10/2009
PENNWEST	0489761	3.03	2" ELBOW	4.32	*	4.85 U	0.122	09/26/2008	09/26/2008
PENNWEST	0489761	3.04	2" ELBOW	4.34	*	4.85 U	0.119	11/09/2008	11/09/2008
PENNWEST	0489761	3.05	2" ELBOW	4.50	*	4.85 U	0.104	09/13/2009	09/13/2009
PENNWEST	0489761	5.01	2" ELBOW	4.70	*	4.85 U	0.084	04/20/2011	04/20/2011
PENNWEST	0489761	5.02	2" ELBOW	4.62	*	4.85 U	0.091	08/13/2010	08/13/2010
PENNWEST	0489761	5.03	2" ELBOW	4.57	*	4.85 U	0.097	03/22/2010	03/22/2010
PENNWEST	0489761	5.04	2" ELBOW	4.62	*	4.85 U	0.091	08/13/2010	08/13/2010
PENNWEST	0489761	5.05	2" ELBOW	4.57	*	4.85 U	0.097	03/22/2010	03/22/2010
PENNWEST	0489761	6.01	2" ELBOW	4.55	*	4.85 U	0.099	01/14/2010	01/14/2010
PENNWEST	0489761	6.02	2" ELBOW	4.44	*	4.85 U	0.109	05/24/2009	05/24/2009
PENNWEST	0489761	6.03	2" ELBOW	4.50	*	4.85 U	0.104	09/13/2009	09/13/2009
PENNWEST	0489761	6.04	2" ELBOW	4.52	*	4.85 U	0.102	11/12/2009	11/12/2009
PENNWEST	0489761	6.05	2" ELBOW	4.62	*	4.85 U	0.091	08/13/2010	08/13/2010
PENNWEST	0489762	1.03	2" ELBOW	4.90	*	4.85 U	0.064	07/06/2013	12/03/2013
PENNWEST	0489762	1.04	2" ELBOW	4.75	*	4.85 U	0.079	10/30/2011	10/30/2011
PENNWEST	0489762	1.05	2" ELBOW	4.78	*	4.85 U	0.076	02/13/2012	02/13/2012
PENNWEST	0489762	2.01	2" ELBOW	4.52	*	4.85 U	0.102	11/12/2009	11/12/2009

Report for: Penn West Petroleum Ltd.
Presented by: Echo NDE Inc.
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Unit	Eq/Circ ID	TML / Tube	Location / Elevation	Last Thick	Act TML	Retirement Thickness	Rep TML CR	TML Inspection Date	TML Retirement Date
PENNWEST	0489762	2.02	2" ELBOW	4.44	*	4.85 U	0.109	05/24/2009	05/24/2009
PENNWEST	0489762	2.03	2" ELBOW	4.39	*	4.85 U	0.114	02/10/2009	02/10/2009
PENNWEST	0489762	2.04	2" ELBOW	4.42	*	4.85 U	0.112	04/01/2009	04/01/2009
PENNWEST	0489762	2.05	2" ELBOW	4.50	*	4.85 U	0.104	09/13/2009	09/13/2009
PENNWEST	0551356	6.02	3" ELBOW	6.76		6.67 U	0.124	06/13/2013	10/18/2013
PENNWEST	0551356	6.03	3" ELBOW	6.63	*	6.67 U	0.142	10/25/2012	10/25/2012
PENNWEST	0551356	6.04	3" ELBOW	6.71		6.67 U	0.132	03/27/2013	05/15/2013
PENNWEST	0551356	8.02	3" ELBOW	6.58	*	6.67 U	0.150	06/28/2012	06/28/2012
PENNWEST	0551356	8.03	3" ELBOW	6.40	*	6.67 U	0.175	07/26/2011	07/26/2011
PENNWEST	0551356	8.04	3" ELBOW	6.32	*	6.67 U	0.185	03/29/2011	03/29/2011
PENNWEST	0551356	8.05	3" ELBOW	6.12	*	6.67 U	0.216	07/24/2010	07/24/2010
PENNWEST	3142408	1.01	TOP HEAD	10.08		6.09 U	0.813	07/23/2015	01/06/2018
PENNWEST	3142408	1.02	TOP HEAD	10.06		6.09 U	0.820	07/09/2015	12/09/2017
PENNWEST	3142408	1.03	TOP HEAD	10.19		6.09 U	0.818	08/09/2015	02/09/2018
PENNWEST	3142408	1.04	TOP HEAD	10.08		6.09 U	0.818	07/18/2015	12/26/2017
PENNWEST	3142408	1.05	TOP HEAD	9.91		6.09 U	0.836	05/21/2015	09/01/2017
PENNWEST	3142408	1.06	TOP HEAD	10.34		6.09 U	0.836	08/23/2015	03/09/2018
PENNWEST	3142408	2.01	SHELL	10.72		7.68 U	0.836	12/02/2014	09/26/2016
PENNWEST	3142408	2.02	SHELL	10.59		7.68 U	0.831	11/08/2014	08/09/2016
PENNWEST	3142408	2.03	SHELL	10.57		7.68 U	0.831	11/02/2014	07/29/2016
PENNWEST	3142408	2.04	SHELL	10.54		7.68 U	0.831	10/28/2014	07/18/2016
PENNWEST	3142408	2.05	SHELL	10.54		7.68 U	0.841	10/20/2014	07/03/2016
PENNWEST	3142408	2.06	SHELL	10.72		7.68 U	0.836	12/02/2014	09/26/2016
PENNWEST	3142408	2.07	SHELL	10.64		7.68 U	0.856	10/31/2014	07/24/2016
PENNWEST	3142408	2.08	SHELL	10.54		7.68 U	0.859	10/07/2014	06/07/2016
PENNWEST	3142408	2.09	SHELL	10.67		7.68 U	0.841	11/17/2014	08/27/2016
PENNWEST	3142408	2.10	SHELL	10.62		7.68 U	0.859	10/24/2014	07/10/2016
PENNWEST	3142408	2.11	SHELL	10.49		7.68 U	0.848	10/04/2014	05/31/2016
PENNWEST	3142408	2.12	SHELL	10.44		7.68 U	0.859	09/16/2014	04/25/2016
PENNWEST	3142408	3.01	SHELL	10.39		7.68 U	0.820	10/02/2014	05/27/2016
PENNWEST	3142408	3.02	SHELL	10.36		7.68 U	0.828	09/21/2014	05/05/2016
PENNWEST	3142408	3.03	SHELL	10.39		7.68 U	0.818	10/04/2014	05/31/2016
PENNWEST	3142408	3.04	SHELL	10.52		7.68 U	0.805	11/11/2014	08/15/2016
PENNWEST	3142408	3.05	SHELL	10.57		7.68 U	0.828	11/04/2014	08/02/2016
PENNWEST	3142408	3.06	SHELL	10.34		7.68 U	0.813	09/26/2014	05/15/2016
PENNWEST	3142408	3.07	SHELL	10.31		7.68 U	0.813	09/20/2014	05/04/2016
PENNWEST	3142408	3.08	SHELL	10.31		7.68 U	0.813	09/20/2014	05/04/2016
PENNWEST	3142408	3.09	SHELL	10.31		7.68 U	0.813	09/20/2014	05/04/2016
PENNWEST	3142408	3.10	SHELL	10.29		7.68 U	0.828	09/04/2014	04/01/2016
PENNWEST	3142408	3.11	SHELL	10.36		7.68 U	0.813	10/02/2014	05/27/2016
PENNWEST	3142408	3.12	SHELL	10.36		7.68 U	0.813	10/02/2014	05/27/2016
PENNWEST	3142408	4.01	BOTTOM HEAD	10.69		6.09 U	0.724	04/12/2016	06/18/2019
PENNWEST	3142408	4.02	BOTTOM HEAD	9.80		6.09 U	0.836	04/28/2015	07/18/2017
PENNWEST	3142408	4.03	BOTTOM HEAD	9.91		6.09 U	0.823	06/03/2015	09/27/2017
PENNWEST	3142408	4.04	BOTTOM HEAD	9.98		6.09 U	0.803	07/11/2015	12/13/2017
PENNWEST	3142408	4.05	BOTTOM HEAD	9.83		6.09 U	0.820	05/19/2015	08/29/2017
PENNWEST	3142408	4.06	BOTTOM HEAD	9.86		6.09 U	0.818	05/27/2015	09/14/2017
PENNWEST	3142408	5.01	1" NOZZLE	5.38	*	5.56 U	0.056	12/19/2009	12/19/2009
PENNWEST	3142408	5.02	1" NOZZLE	4.93	*	5.56 U	0.084	07/22/2005	07/22/2005
PENNWEST	3142408	5.03	1" NOZZLE	5.03	*	5.56 U	0.076	02/19/2006	02/19/2006
PENNWEST	3142408	5.04	1" NOZZLE	5.23	*	5.56 U	0.066	02/21/2008	02/21/2008
PENNWEST	3142408	5.05	1" NOZZLE	5.23	*	5.56 U	0.066	02/21/2008	02/21/2008
PENNWEST	3142408	9.05	3" ELBOW	4.80		4.80 U	0.041	02/08/2013	02/11/2013
PENNWEST	SN 106.11	1.05	SOUTH HEAD	8.71		8.66 U	0.053	08/03/2013	01/29/2014
PENNWEST	SN 106.11	1.06	SOUTH HEAD	8.69		8.66 U	0.030	07/16/2013	12/24/2013
PENNWEST	SN 106.11	2.05	SHELL	9.04	*	9.06 U	0.091	11/28/2012	11/28/2012

 Report for: Penn West Petroleum Ltd.
 Presented by: Echo NDE Inc.
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Unit	Eq/Circ ID	TML / Tube	Location / Elevation	Last Thick	Act TML	Retirement Thickness	Rep TML CR	TML Inspection Date	TML Retirement Date
PENNWEST	SN 106.11	4.01	SHELL	8.81	*	9.06 U	0.208	12/02/2011	12/02/2011
PENNWEST	SN 106.11	4.02	SHELL	8.61	*	9.06 U	0.328	09/24/2011	09/24/2011
PENNWEST	SN 106.11	4.03	SHELL	8.66	*	9.06 U	0.315	11/02/2011	11/02/2011
PENNWEST	SN 106.11	4.04	SHELL	8.94	*	9.06 U	0.145	04/11/2012	04/11/2012
PENNWEST	SN 106.11	4.05	SHELL	9.09		9.06 U	0.104	04/05/2013	06/02/2013
PENNWEST	SN 122B	1.06	SHELL	8.41	*	8.44 U	0.025	10/26/2011	10/26/2011
PENNWEST	SN 122B	2.03	SHELL	8.36	*	8.44 U	0.025	10/26/2009	10/26/2009
PENNWEST	SN 122B	2.04	SHELL	8.33	*	8.44 U	0.028	03/17/2009	03/17/2009
PENNWEST	SN 122B	2.05	SHELL	8.25	*	8.44 U	0.033	07/02/2007	07/02/2007
PENNWEST	SN 122B	2.06	SHELL	8.36	*	8.44 U	0.025	10/26/2009	10/26/2009
PENNWEST	SN 122B	3.04	BOTTOM HEAD	8.51	*	8.55 U	0.025	06/27/2011	06/27/2011
PENNWEST	SN 122B	4.01	2" ELBOW	3.45		3.42 U	0.036	08/01/2013	01/25/2014
PENNWEST	SN 122B	4.03	2" ELBOW	3.17	*	3.42 U	0.056	09/19/2008	09/19/2008
PENNWEST	SN 122B	4.04	2" ELBOW	3.12	*	3.42 U	0.061	04/01/2008	04/01/2008
PENNWEST	SN 122B	6.05	2" ELBOW	3.45		3.42 U	0.036	08/01/2013	01/25/2014
PENNWEST	SN 5783-10	2.06	SHELL	4.78		4.76 U	0.025	05/26/2013	09/13/2013
PENNWEST	SN 8501E	1.01	SHELL	5.03	*	4.51 U	-2.515	02/06/2013	02/06/2013
PENNWEST	SN 8501E	3.02	BOTTOM HEAD	4.27		4.22 U	0.048	08/03/2013	01/29/2014
PENNWEST	SN 8501E	4.07	2" 180° NOZZLE	3.51		3.42 U	0.099	07/13/2013	12/17/2013
PENNWEST	SN 8501E	4.08	2" 180° NOZZLE	3.43		3.42 U	0.117	02/20/2013	03/06/2013
PENNWEST	SN JL2012-049	2.01	SHELL	8.46		8.41 U	0.183	03/26/2013	05/13/2013
PENNWEST	SN JL2012-049	2.02	SHELL	8.41	*	8.41 U	0.229	02/02/2013	02/02/2013
PENNWEST	SN JL2012-049	2.03	SHELL	8.41	*	8.41 U	0.229	02/02/2013	02/02/2013
PENNWEST	SN JL2012-049	2.04	SHELL	8.43		8.41 U	0.206	02/26/2013	03/18/2013
PENNWEST	SN JL2012-049	2.06	SHELL	8.51		8.41 U	0.137	06/18/2013	10/28/2013
PENNWEST	SN JL2012-049	2.07	SHELL	8.48		8.41 U	0.160	05/01/2013	07/24/2013
PENNWEST	SN JL2012-049	2.08	SHELL	8.41	*	8.41 U	0.229	02/02/2013	02/02/2013
PENNWEST	SN JL2012-049	2.09	SHELL	8.43		8.41 U	0.206	02/26/2013	03/18/2013
PENNWEST	SN JL2012-049	2.10	SHELL	8.46		8.41 U	0.183	03/26/2013	05/13/2013
PENNWEST	SN JL2012-049	3.02	BOTTOM HEAD	7.67	*	7.69 U	0.244	01/08/2013	01/08/2013
PENNWEST	SN JL2012-049	3.03	BOTTOM HEAD	7.65	*	7.69 U	0.267	12/07/2012	12/07/2012
PENNWEST	SN JL2012-049	3.04	BOTTOM HEAD	7.77		7.69 U	0.152	05/15/2013	08/22/2013
PENNWEST	SN JL2012-049	3.05	BOTTOM HEAD	7.80		7.69 U	0.130	07/08/2013	12/07/2013
PENNWEST	SN JL99-085	1.03	SHELL	7.98		7.96 U	0.025	05/29/2013	09/18/2013
PENNWEST	SN JL99-085	1.05	SHELL	7.80	*	7.96 U	0.030	10/12/2007	10/12/2007
PENNWEST	SN JL99-085	2.05	SHELL	7.95	*	7.96 U	0.025	09/18/2012	09/18/2012
PENNWEST	SN JL99-085	2.07	SHELL	7.92	*	7.96 U	0.025	09/19/2011	09/19/2011
PENNWEST	SN JL99-085	2.08	SHELL	7.98		7.96 U	0.025	05/29/2013	09/18/2013
PENNWEST	SN JL99-085	3.02	BOTTOM HEAD	8.46	*	8.53 U	0.025	04/11/2010	04/11/2010
PENNWEST	TAG PWV02115	3.01	BOTTOM HEAD	5.33		4.69 U	0.589	08/24/2013	03/12/2014