



RMS II - Equipment History

Equipment : BOP Control Pod

Tag : WCS BOPP 002

Date: 20 May 2010

Time: 8:52 AM

Page: 1 of 80

Start Date: 20 Jan 2001

End Date: 20 May 2010

Report Options

<u>Rig(s)</u>	<u>Craft(s)</u>	<u>Job Type(s)</u>	Include Machinery Report: Yes
Deepwater Horizon	* All Crafts	PM	Include Child Tags: No
		Repair	Historical Tags: No
		Not Specified	Verification Only: No
		Machinery Report	
		Crane Report	

Rig : Deepwater Horizon

Equipment :	BOP Yellow MUX Control Pod	Tag Number :	WCS BOPP 002
Mfg :	Cameron	Equipment ID :	0155001490
Model :	2020/08-16-0102 MARK II	Serial# :	MUX 11376970-03

Completion Date: 01 November 2001

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[Rig Move] -Inspect Wellbore Tran	1550038001779	Electronics	PM	0.00

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Deepwater Horizon

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TRN-INV-00034227

TDR038-028916

TREX-03299

3299

Exhibit No. _____
Worldwide Court
Reporters, Inc.

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8701-001589-000
DATE START : 09/24/2001 00:45:27.000000
DATE COMPLETE : 11/01/2001 23:59:59.000000
No Work Reported in EMPAC

*90 Day[Rig Move]-Inspect Interconnect C 1550038001780 Electronics PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8701-001590-000
DATE START : 09/24/2001 00:45:42.000000
DATE COMPLETE : 11/01/2001 23:59:59.000000
No Work Reported in EMPAC

Completion Date: 10 November 2001

Job Description

Total Hours

Job Type

Craft

Job Number

*90 Day [Rig Move]-Inspect Male And Fema

0.00

PM

Well Control

1550038002037

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8701-001752-000
INSPECT MALE & FEMALE ASSEMBLY
11/10/2001 14:03:51
AFTER INSPECTION OF MALE STINGER, PACKER SEALS AND FEMALE RECEPTACLE LIGHTLY COAT WITH LUBRIPLATE.

*90 Day[Rig Move]-Inspect Cameron Spm V 1550038002038 Well Control PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8701-001753-000
CAMERON SLIDE VALVES
11/10/2001 13:58:38
CHANGED ALL 1" VALVES ON POD TO UPGRADED TYPE, USE UPGRADED REPAIR KIT FOR 3/4" VALVES ON POD REV-D01. ACCUMULATOR CHARGE VALVE MAKE SURE SEAL PLATES MATERIAL IS STELITE THIS IS AND UPGRADE FROM CAMERON.EMPAC WORK ORDER NO : 8701-001753-000
INSPECT CAMERON SLIDE VALVES
11/10/2001 16:16:27
ALL 1" VALVES BEEN CHANGED OUT TO THE UPGRADED TYPE, AND USE REV-D01 FOR 3/4" VALVES ON PODS. ON THE ACCUMULATOR CHARGE VALVES MAKE SURE SEAL PLATE MATERIAL IS STELITE UPGRADE REPAIR KIT FROM CAMERON

*90 Day[Rig Move]Inspect And Test Press 1550038002039 Well Control PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8701-001754-000
INSPECT & PRESSURE SEM
11/10/2001 13:48:49
USE DC-200 WHEN CONDUCTING PRESSURE TEST ON SEALS (SEM)
PRESSURE TEST TO 5000 PSI ON SEALS

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Deepwater Horizon

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TRN-INV-00034228

TDR038-026917

***90 Day[Rig Move] Change Pods Filter Ele** 1550038002040 Well Control PM 0.00
 Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8701-001755-000
 POD FILTERS
 11/10/2001 13:44:54
 INSPECT O-RINGS AND O-RINGS INSIDE HOUSING

Completion Date: 03 January 2002

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[Rig Move]-Insulation Test On Flan	1550038001776	Electronics	PM	0.50
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8701-001586-000 CAN NOT PERFORM 11/15/2001 10:33:55 CAN NOT PERFORM DUE TO EQUIP. BEING USED. PERFORM AT RIG MOVE.				
*90 Day[Rig Move] Inspect Solenoid Conne	1550038001777	Electronics	PM	0.50
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8701-001587-000 CAN NOT PERFORM 11/15/2001 10:31:07 CAN NOT PERFORM DUE TO EQUIP. BEING USED. PERFORM AT RIG MOVE				
*90 Day[Rig Move] -Inspect Connections O	1550038001778	Electronics	PM	0.50
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8701-001588-000 CAN NOT PERFORM 11/15/2001 10:42:01 CAN NOT PERFORM DUE TO EQUIP BEING USED. PERFORM AT RIG MOVE.				

Completion Date: 25 February 2002

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[Rig Move] -Inspect Cameron Spm V	1550038005436	Well Control	PM	0.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8702-000882-000 INSPECT SLIDE VALVES ON POD 02/24/2002 17:07:57 DONE ON 2/15/02				
*90 Day [Rig Move]-Inspect Male And Fema	1550038005439	Well Control	PM	0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-000885-000
INSPECT MALE & FEMALE RECP:
02/24/2002 17:06:49
INSPECT AND LIGHT COAT OF LUBRIPLATE

***90 Day[Rig Move] Change Pods Filter Ele** 1550038005442 Well Control PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-000888-000
POD FILTERS
02/24/2002 16:56:03
CHANGE BLUE & YELLOW 2/15/02

Completion Date: 05 March 2002

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[Rig Move]Inspect And Test Press	1550038005291	Well Control	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-000833-000 PRESSURE TEST SEM 03/04/2002 17:48:39 DONE BOTH SEMS 2-22-02EMPAC WORK ORDER NO : 8702-000833-000 Mass Closing 03/05/2002 10:08:11 ALL RIG MOVE ITEMS PERFORMED FEB. 02			

Completion Date: 06 March 2002

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[During Drilling Operations]Rebu	1550038005963	Well Control	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-001238-000 YELLOW POD 03/04/2002 12:06:00 DONE			

Completion Date: 19 April 2002

Job Description	Job Number	Craft	Job Type	Total Hours
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Bad Card And Cable

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-000934-000
YELLOW POD PBOF CABLE&PC CARD
04/16/2002 20:16:38
CAMERON ITEMS

1550038005487

Well Control

Corrective Maintenance

0.00

2 EA. DIGITAL OUTPUT CARDS (PIGGY BACKS) 30-2507
1 EA. CABLE, PBOF SEM 00-400283
REPAIRS MADE TO YELLOW POD DURING RIG MOVE

Completion Date: 18 May 2002

Job Description	Job Number	Craft	Job Type	Total Hours
*90 Day[Rigmove]-Insulation Test On Flan	1550038007203	Electronics	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-002123-000 Can not due at this time 05/01/2002 03:06:59 Can't due at this time BOP is down Gene			
*90 Day[Rig Move]-Inspect Connections O	1550038007208	Electronics	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-002128-000 Can not due at this time 05/01/2002 03:06:35 Can't due at this time BOP is down Gene			
*90 Day[Rig Move] Inspect Solenoid Conne	1550038007209	Electronics	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-002129-000 Can not due at this time 05/01/2002 03:06:14 Can't due at this time BOP is down Gene			
*90 Day[Rigmove]-Inspect Interconnect C	1550038008168	Electronics	PM	0.00

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Deepwater Horizon

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TRN-INV-00034231

TDR038-028920

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-002732-000
Can not due at this time
05/01/2002 03:04:56
Can't due at this time BOP is down
Gene

***90 Day[Rig Move] -Inspect Wellbore Tran** 1550038008292 Electronics PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-002846-000
Can not due at this time
05/01/2002 03:04:16
Can't due at this time BOP is down
Gene

Completion Date: 07 July 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Inspect Solenoid Connectors -	1550038010275	Electronics	PM	0.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8702-004114-000				
SOLENOIDS				
07/03/2002 15:08:42				
TAKEN CARE OF BY CAMERON REPS				

Rig Move - Inspect Wellbore Transmitters 1550038010294 Electronics PM 0.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-004133-000
WELL BORE
07/03/2002 15:07:14
TAKEN CARE OF BY CAMERON REPS

Completion Date: 14 July 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Insulation Test On Flanged Co	1550038010156	Well Control	PM	1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-004097-000
SEE NOTES

07/13/2002 14:24:48

YELLOW MUX CABLE WAS CHANGED OUT DUE TO BAD MEG. 50 MEG. INSTALLED NEW MUX CABLE
8/25/02. ON YELLOW MUX REEL. CAMERON ET DID INSTALATION OF WIRES A J BOX ON YELLOW MUX
REEL.

Completion Date:

15 August 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rental Of Power Spooler For Mux Cable	1550038010108	Well Control	PM	24.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-004050-000 POWERED SPOOLER 08/23/2002 15:07:27 POWERED SPOOLER & EQUIPMENT ORDERED FROM AKER MARINE PH#(985)580-4454 POWERED SPOOLER 3 DAYS @ \$1500 PER DAY EMPTY SPOOL 3 DAYS @ \$25 PER DAY LOADING \$870 UNLOADING \$870			

Send Pilot Filters In For Yellow Pod Tha

Job Description	Job Number	Craft	Job Type	Total Hours
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-004453-000 DATESTART : 07/18/2002 12:34:45.000000 DATECOMPLETE : 08/15/2002 23:59:59.000000 No Work Reported in EMPAC	Well Control	PM	0.00

Rig Move -Inspect And Test Pressure Vess

Job Description	Job Number	Craft	Job Type	Total Hours
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-005123-000 RIG MOVE -INSPECT AND TEST PRE 08/08/2002 00:04:58 YELLOW POD SENT TO TOWN.	Well Control	PM	2.00

Completion Date:

16 August 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Change Pods Filter Elements	1550038011685	Well Control	PM	2.00

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TRN-INV-00034233

TDR038-028922

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005237-000
POD FILTERS YELLOW POD
08/07/2002 22:13:40
SENT YELLOW POD TO TOWN FOR REPAIRS.

Rig Move - Inspect Cameron Spm Valves 1550038011691 Well Control PM 2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005243-000
YELLOW POD
08/07/2002 21:04:00
YELLOW POD WAS SENT TO TOWN TO BE REWORKED.

Rig Move - Inspect Interconnect Cable - 1550038011696 Well Control PM 2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005248-000
RIG MOVE - INSPECT INTERCONNECT
08/08/2002 01:41:14
YELLOW POD SENT IN TO TOWN FOR MODIFICATIONS.

Rig Move - Inspect Male And Female Pod A 1550038011698 Well Control PM 1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005250-000
POD IN FOR REPAIRS
08/07/2002 20:48:00
POD IN FOR REPAIRS

Completion Date: 26 September 2002

Job Description

Total Hours

Job Type

Craft

Job Number

Rig Move - During Drilling Operations Re

1550038012386 Well Control PM

48.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005671-000
DELETE THIS DUPLICATE
09/25/2002 16:07:45
DELETE THIS DUPLICATE

Completion Date: 15 October 2002

Job Description

Total Hours

Job Type

Craft

Job Number

Slings For Shipping Pod Back To Rig From

1550038012089 Well Control PM

4.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-005527-000

SEE NOTES

08/21/2002 13:19:51

SLINGS FOR SHIPPING POD BACK TO RIG FROM CAMERON CONTROLS NEED TO SHIP SLINGS TO CAMERON CONTROLS IN HOUSTON CONTROLS URGENT.

STOCK NO# 417042 NEED TWO SETS OF SLINGS AND CERTS:

ATTN: BRAD CODY

CAMERON CONTROLS

6650 BINGLE ROAD

HOUSTON TX, 77092 EMPAC WORK ORDER NO : 8702-005527-000

UPDATE

10/14/2002 15:28:53

SLINGS ARE IN USE IN HOUSTON AT CAMERON CONTROLS WILL BE SENT TO RIG WITH YELLOW POD.

Completion Date: 25 October 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Yellow Pod Mods To Install High Shock FI	1550038008657	Well Control	Other Maintenance	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-003134-000 YEL POD HIGH SHOCK FLOWMETER 05/08/2002 12:35:05 INSTALLATION OF HIGH SHOCK FLOWMETER, ROCK CATCHER AND COMPLETE TESTING OF ALL SYSTEMS ON YELLOW POD AT CAMERON CONTROLS HOUSTON TEXAS. CERTIFICATION OF ALL APPLICABLE PARTS ARE ALSO INCLUDED IN THIS QUOTE. COST \$54,585.10 CONTACT BRAD CODY CAMERON CONTROLS HOUSTON, TX. (713)- 683-4327 683-4600 EMPAC WORK ORDER NO : 8702-003134-000 REQUISITION 06/10/2002 17:48:54 NUMBER 1045			

Completion Date: 03 November 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Inspect And Test Pressure Vess	1550038015179	Well Control	PM	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-007508-000			
	SEE NOTES			
	11/16/2002 16:05:48			
	DONE ON 11-3-02 GOOD TEST			

Completion Date: 04 November 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Inspect Wellbore Transmitters	1550038014670	Electronics	PM	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-007134-000			
	COMPLETION NOTES			
	11/04/2002 00:12:27			
	NAME: GENE / JAY			
	STEPS COMPLETED: PERFORMED ALL STEPS WITH CAMERON AND REPLACED O-RING SEALS BUT THERE WAS NO DAMAGE NOTED.			
	STEPS NOT COMPLETED: NONE			
	EQUIPMENT OUT OF SERVICE (HOURS:) (DOWNTIME:) 2 HOURS /0			
	COMMENTS: PART OF THE SUBSEA CHECK LIST TO BE DONE EVERY TIME STACK IS UP DURING RIG MOVE.			

Rig Move - Inspect Connections On Interc	1550038014673	Electronics	PM	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-007137-000			
	COMPLETION NOTES			
	11/04/2002 00:13:50			
	NAME: GENE / JAY			
	STEPS COMPLETED: PERFORMED ALL STEPS WITH CAMERON AND REPLACED O-RING SEALS BUT THERE WAS NO DAMAGE NOTED.			
	STEPS NOT COMPLETED: NONE			
	EQUIPMENT OUT OF SERVICE (HOURS:) (DOWNTIME:) 2 HOURS /0			
	COMMENTS: PART OF THE SUBSEA CHECK LIST TO BE DONE EVERY TIME STACK IS UP DURING RIG MOVE.			

Rig Move - Insulation Test On Flanged Co	1550038014675	Electronics	PM	3.00
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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-007139-000
COMPLETION NOTES

11/04/2002 00:13:11

NAME: GENE / JAY

STEPS COMPLETED: PERFORMED ALL STEPS WITH CAMERON AND REPLACED O-RING SEALS BUT THERE WAS NO DAMAGE NOTED.

STEPS NOT COMPLETED: NONE

EQUIPMENT OUT OF SERVICE (HOURS:) (DOWNTIME:) 2 HOURS /0

COMMENTS: PART OF THE SUBSEA CHECK LIST TO BE DONE EVERY TIME STACK IS UP DURING RIG MOVE.

Rig Move - Inspect Male And Female Pod A 1550038015178 Well Control PM 4.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-007507-000
SEE NOTES

11/16/2002 16:07:44

CHANGE ALL DAMAGED STINGER SEALS, AND LIGHTLY LUB FEMALE RECEPTICALS 11-4-02

Rig Move - Inspect Interconnect Cable - 1550038015180 Well Control PM 3.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-007509-000
SEE NOTES

11/16/2002 16:03:46

MEG ALL CABLES GOOD TEST CABLES IN GOOD CONDITION 11-3-02

Rig Move - Change Pods Filter Elements 1550038015182 Well Control PM 2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-007511-000
SEE NOTES

11/16/2002 16:00:21

PILOT FILTERS CHANGED 11-4-02

Completion Date: 06 November 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Inspect Cameron Spm Valves	1550038015181	Well Control	PM	4.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8702-007510-000				
SEE NOTES				
11/16/2002 16:01:57				
CHECK ALL 1" VALVES E-CLIPS FOR PROPER INSTALLATION				

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TRN-INV-00034237

TDR038-028926

Completion Date: 22 November 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Yellow Pod, Rig Move Parts Used	1550038014540	Well Control	PM	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8702-007055-000			
	YELLOW POD PARTS			
	10/27/2002 10:06:10			
	CHARGE TO BOP MAINTENANCE PROJECT NO!!!!			
	YELLOW POD PARTS			
	1 EA. HOSE 1/2" PILOT JUMPER	000000000417287		

Completion Date: 18 December 2002

Job Description	Job Number	Craft	Job Type	Total Hours
Trouble Shoot Leaking Solenoid Valves On	1550038014008	Well Control	PM	0.00

TRN-INV-00034238

TDR038-028927

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Deepwater Horizon

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-006723-000
UNIT ORDERED
10/31/2002 07:41:49
UNIT TO BE ORDER AS PER J. KEETON EMPAC WORK ORDER NO : 8702-006723-000
CARD LOADED
10/09/2002 19:47:31
NOTE: THIS IS THE ONLY PART THAT SUBSEA WANTS. IGNORE PHORSUBS NOTE.

VENDOR: UE SYSYEM, INC
CONTACT: HELEN A. CLINT
PH#-800-223-1325
FAX-914-347-2181.

RECOMMENDED BY: STEVE DONOHUE SUB SEA TECHNICAL SUPPORT HOUSTON
FOR TROUBLE SHOOTING SOLENOID VALVES ON PODS FOR LEAKS

UP9000 LRM ULTRAPROBE LONG RANGE MODULE KIT FOR \$ 5.995.00 ITEM (1)
NORMAL CRITICALITY

Delivery: 1 weeks ARO
FOB: Elmsford NY
Signed by: Helen A. Clint
Warranty: One year parts/labor standard
Five years parts/labor upon completed registration
Terms: prepayment via v/t or credit card
Manufactured in the USA. Weight: 22 lbs. (10 kg)
UE Systems Accepts: Visa-MasterCard-American Express

EMPAC #38269 EMPAC WORK ORDER NO : 8702-006723-000
CARD REQUESTED
09/25/2002 17:55:51
CARD REQUEST NUMBER 5883 EMPAC WORK ORDER NO : 8702-006723-000
NEED CARDS.
09/24/2002 14:12:05
NOTE: THIS IS THE ONLY PART THAT SUBSEA WANTS. IGNORE PHORSUBS NOTE.

VENDOR: UE SYSYEM, INC
CONTACT: HELEN A. CLINT
PH#-800-223-1325
FAX-914-347-2181.

RECOMMENDED BY: STEVE DONOHUE SUB SEA TECHNICAL SUPPORT HOUSTON
FOR TROUBLE SHOOTING SOLENOID VALVES ON PODS FOR LEAKS

UP9000 LRM ULTRAPROBE LONG RANGE MODULE KIT FOR \$ 5.995.00 ITEM (1)
NORMAL CRITICALITY

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TRN-INV-00034239

TDR038-028928

Delivery: 1 weeks ARO

FOB: Elmstord NY

Warranty: One year parts/labor standard

Five years parts/labor upon completed registration

Terms: prepayment via 1/1 or credit card

Manufactured in the USA, Weight: 22 lbs. (10 kg)

UE Systems Accepts: Visa-MasterCard-American Express

Signed by: Helen A. Clint

EMPAC WORK ORDER NO : 8702-006723-000

ULTRAPROBE SEE NOTES

09/24/2002 08:57:02

VENDOR: UE SYSYEM, INC

CONTACT: HELEN A. CLINT

PH#-800-223-1325

FAX-914-347-2181.

RECOMMENDED BY: STEVE DONOHUE SUB SEA TECHNICAL SUPPORT HOUSTON
FOR TROUBLE SHOOTING SOLENOID VALVES ON PODS FOR LEAKS

SEE ATTACHMENT FOR PRICE, FOR UP9000 LRM ULTRAPROBE LONG RANGE MODULE KIT FOR \$ 5,995.00
ITEM (1)

ULTRAPROBETM 9000 KT QUOTATION

ULTRAPROBE 9000 KT Complete Includes:

The ULTRAPROBE 9000 housing with Digital LCD Display and LED Backlight, *TRI-sonic Scanning Module for locating airborne ultrasound, *Rubber Focusing Probe for narrowing reception field and for shielding ambient ultrasounds, *Stethoscope Module (contact type) for monitoring internally generated ultrasounds, *Extension Probe Kit to increase stethoscope contact range to 31 inches, *Warble Tone Generator, *Deluxe Industrial Headset (acoustic isolating type), *UltraTrendTM data transfer software, Battery re-charger (specify 110V or 220V), *Zero Halburton aluminum carrying case, *MT4 Infrared Thermometer, *Comprehensive Instruction Manual and

Completion Date: 08 January 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Pbof Cable And Flowmeter Box Bolts	1550038006752	Well Control	PM	1.00

TRN-INV-00034240

TDR038-028929

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Deepwater Horizon

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-001837-000
CARD READY
03/23/2002 13:37:56
TSF# 00-21332
CABLE, PRESSURE- BALANCE- OIL- FILLED, 22 PIN X 90 DEG. BOTH ENDS X 5 FT. LG. P/N 2185879-22-05
1 EA. \$9,904.00 EA.
NO STOCK CARD NO.

TSF # 00-21333
BOLTS, 1/4" X 2" LG. HIGH STRENGTH ALLOY W/SPECIAL COATING,
10 EA. \$6.00 EA.
F/POD FLOWMETER BOX, BOP,
NO STOCK CARD NO. P/N 2185496-01

TSF # 00-21335
WASHER, 1/4" HIGH STRENGTH ALLOY W/SPECIAL COATING
10 EA. \$1.50 EA.
FOR POD FLOWMETER BOX, BOP.
NO STOCK CARD NO. P/N 2185497-01

TSF STK # 00-417388
ELEMENT, FILTER 25 MICRON, FRIGID CONDUIT FILTER ON LMRP
4 EA. \$966.00 EA.
STOCK CARD NO. 0 P/N 2762098-32-25

- 0417388

THESE ARE CAMERON CONTROLS PART NOS.
EMPAC WORK ORDER NO : 8702-001837-000
NEED STOCK CARDS
03/21/2002 07:52:19
IN NEED OF STOCK CARDS

CABLE, PRESSURE- BALANCE- OIL- FILLED, 22 PIN X 90 DEG. BOTH ENDS X 5 FT. LG. P/N 2185879-22-05
1 EA. \$9,904.00 EA.
NO STOCK CARD NO.

BOLTS, 1/4" X 2" LG. HIGH STRENGTH ALLOY W/SPECIAL COATING,
10 EA. \$6.00 EA.
F/POD FLOWMETER BOX, BOP,
NO STOCK CARD NO. P/N 2185496-01

WASHER, 1/4" HIGH STRENGTH ALLOY W/SPECIAL COATING
10 EA. \$1.50 EA.
FOR POD FLOWMETER BOX, BOP.
NO STOCK CARD NO. P/N 2185497-01

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TRN-INV-00034241

TDR038-028930

ELEMENT, FILTER 25 MICRON, FRIGID CONDUIT FILTER ON LMRP
4 EA. \$966.00 EA.
P/N 2762098-32-25
STOCK CARD NO. 0

- 0417388

THESE ARE CAMERON CONTROLS PART NOS.
EMPAC WORK ORDER NO : 8702-001837-000
NO STOCK CARDS FIRST 3 ITEMS

03/20/2002 16:11:48

.EMPAC WORK ORDER NO : 8702-001837-000

PBOF CABLE AND FILTER ELEMENTS

03/20/2002 16:12:46

CABLE, PRESSURE- BALANCE- OIL- FILLED, 22 PIN X 90 DEG. BOTH ENDS X 5 FT. LG. P/N 2185879-22-05
1 EA. \$9,904.00 EA.

NO STOCK CARD NO.

BOLTS, 1/4" X 2" LG. HIGH STRENGTH ALLOY W/SPECIAL COATING,
10 EA. \$6.00 EA.

F/POD FLOWMETER BOX, BOP,

NO STOCK CARD NO.

WASHER, 1/4" HIGH STRENGTH ALLOY W/SPECIAL COATING
10 EA. \$1.50 EA.

FOR POD FLOWMETER BOX, BOP.

NO STOCK CARD NO.

ELEMENT, FILTER 25 MICRON, FRIGID CONDUIT FILTER ON LMRP
4 EA.
P/N 2762098-32-25

Completion Date: 23 February 2003

Job Description	Job Number	Craft	Job Type	Total Hours
When Sitting Pod In Test Stand You Have	1550038015322	Well Control	PM	1.00

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TRN-INV-00034242

TDR038-028931

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8702-007662-000

LOAD CARD

11/19/2002 21:37:13

PLEASE LOAD CARD

ON REQUEST ONLY

CRIT: NORMAL

EMPAC WORK ORDER NO : 8702-007662-000

SEE NOTES

11/16/2002 09:20:45

VENDOR: CROSBY

TRANSOCEAN STK# 000000000440915

DESP: 25 TON SWIVEL EYE TO EYE

DIRECT ISSUE TO SUB SEA DEPT;

QTY 1 EACH

****EQUIPMENT USED ON MOVING POD FROM LMRP TO TEST STAND IN A SAFE MANNER***** EMPAC

WORK ORDER NO : 8702-007662-000

PART RECIEVED

02/21/2003 15:39:52

RECEIVED

Completion Date: 26 March 2003

Job Description

Rig Move - Inspect Solenoid Connectors -

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-001437-000

SOLENOIDS REPLACED

04/12/2003 13:04:09

THESE SOLENOIDS WERE REPLACED WITH REBUILT VALVES: 3/03

5A

5B

7A

53

57

58

EMPAC WORK ORDER NO : 8703-001437-000

SOLENOIDS INSPECTED

03/25/2003 14:09:07

NAME: SUB-SEA SWAT TEAM

STEPS COMPLETED: 1-4

STEPS NOT COMPLETED:

EQUIPMENT OUT OF SERVICE (HOURS:) (DOWNTIME:)

COMMENTS: INSPECTED SOLENOIDS AND OPERATED EACH ONE

Total Hours

8.00

20 May 2010

Deepwater Horizon

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TRN-INV-00034243

TDR038-028932

Rig Move - Inspect Wellbore Transmitters

PM

3.00

1550038019236

Electronics

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-001443-000

INSPECTION COMPLETE

03/25/2003 15:35:57

NAME: RALEIGH

STEPS COMPLETED: ALL

STEPS NOT COMPLETED:

EQUIPMENT OUT OF SERVICE (HOURS) (DOWNTIME):

COMMENTS:

Completion Date: 30 March 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Project - Yellow Pod, Solenoid Repair,	1550038019667	Well Control	Corrective Maintenance	0.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8703-001676-000			
	NOTE			
	03/30/2003 10:01:50			
	THIS WO CLOSED DUE TO CHANGE OF PROJECT CODE. SEE WO # 03-1798.			

Completion Date: 20 April 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Auto-Shear Springs Broken	1550038019854	Well Control	PM	0.00

20 May 2010

Deepwater Horizon

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TRN-INV-00034244

TDR038-028933

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-001792-000
AUTO SHEAR SPINGS
03/28/2003 08:46:18
NEED IMMEDIATELY FROM CAMERON CONTROLS HOUSTON AS PER VAN WILLIAMS
CONTACT CARTER ERWIN
281-799-7564

4 EA. SPRINGS, 400 LB. TENSION EA., 1 1/4" dia. X 13" LG., SS. F/AUTO SHEAR, ASSY. ITEM 4, BOM
2185486-02 DWG. #SK-122716-02

CAMERON P/N 2185190-08 NO EMPAC NO. NEED CARD

OP 2 OQ 2

CRITICAL SPARESEMPAC WORK ORDER NO : 8703-001792-000
NEED STOCK CARD
03/28/2003 08:48:09
IN NEED OF STOCK CARD.

NEED IMMEDIATELY FROM CAMERON CONTROLS HOUSTON AS PER VAN WILLIAMS
CONTACT CARTER ERWIN
281-799-7564

4 EA. SPRINGS, 400 LB. TENSION EA., 1 1/4" dia. X 13" LG., SS. F/AUTO SHEAR, ASSY. ITEM 4, BOM
2185486-02 DWG. #SK-122716-02

CAMERON P/N 2185190-08 NO EMPAC NO. NEED CARD

OP 2 OQ 2

CRITICAL SPARES EMPAC WORK ORDER NO : 8703-001792-000
CARD LOADED
04/02/2003 00:49:01
EMPAC #53150

Completion Date: 26 May 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Pep Board Solenoid Output	1550038021563	Well Control	PM	0.00

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Deepwater Horizon

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TRN-INV-00034245

TDR038-028934

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-002904-000
SOLENOID PEP BOARDS
05/21/2003 08:55:50
URGENT ORDER REQUESTED BY HOUSTON OFFICE.:

17 EA. BOARD, PCB, DIGITAL OUTPUT, 619095-14-04-02 EMPAC 3 - 2507

NOTE BOARDS ARE IN THE PROCESS OF BEING DISCONTINUED BY CAMERON CONTROL'S VENDOR.
HAVE TO BE ORDERED BY MAY 28 TH!!! EMPAC WORK ORDER NO : 8703-002904-000
CHANGES

05/21/2003 15:30:40

MORE CARDS ADDED AND EA CHANGED TO 7 ON TOI # 3-2507.

Kenneth,

Please add to WO 2904 the following:

2 EA. PCB, VSBC-4 CAMERON NO. 619095-14-02-02 PEP EMPAC NO. - 405717
1 EA. PCB, VM-30, CAMERON NO. 619095-14-01-02 PEP - 402805 (1 IN STOCK)

TOTAL OF 7 EA. OF PCB DIG. OUTPUT 619095-14-04 PEP -3-2507 (3 IN STOCK)
THIS SHOULD COMPLY WITH ADVISORY BELOW.

REGARDS,

Al Cotten O O
Sr. Sub Sea Eng.
Deepwater Horizon
subsea@dwh.rig.deepwater.com
Ph 713-232-8262 Fax 713-232-8268

-----Original Message-----

From: O'leary, Steve
Sent: Wednesday, May 21, 2003 10:13 AM
To: Allen, Ron; Nobles, Jimmy; Matlock, David; Reudelhuber, Dan; Keeton, John
Cc: McMahan, Larry; Gunnels, Rick; Rogers, Mike W; Donohue, Steve; Ridgway, Terry; Rig_CAJ, Oim; Moore, Jimmy; LeBlanc, Janet; Hall, Mike; Rig_CAJ, Subsea; Rig_DWH, OIM; Rig_DWH, Subsea; Rig_DWN, OIM;
Rig_DWN, Subsea; Rig_DWE, Oim; Rig_DWE, Subsea
Subject: RE: URGENT Cameron PLC Board Obsolescence

Gents

Please note stock numbers for the relevant cards

20 May 2010

Deepwater Horizon

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TRN-INV-00034246

TDR038-028935

VSBC-4

Cameron part number 619095-14-02-02-pep
Stock number 000000000405717

VM30

Cameron part number 619095-14-01-02-pep
Stock number 000000000402805

PBDout

Cameron part number 619095-14-04-02-pep
Stock number 300000000002507

SteveO

-----Original Message-----

From: O'leary, Steve
Sent: Wednesday, May 21, 2003 10:00 AM
To: Allen, Ron; Nobles, Jimmy; Matlock, David; Reudelhuber, Dan; Keeton, John
Cc: McMahon, Larry; Gunnels, Rick; Rogers, Mike W; Donohue, Steve; Ridgway, Terry; Rig_CAJ, Oim; Moore, Jimmy; LeBlanc, Janet; Hall, Mike; Rig_CAJ, Subsea; Rig_DWH, OIM; Rig_DWH, Subsea; Rig_DWN, OIM;
Rig_DWN, Subsea; Rig_DWE, Oim; Rig_DWE, Subsea
Subject: RE: URGENT Cameron PLC Board Obsolescence

Gents,

I have just spoken with Jamie Ankrom and cleared up a few grey areas here

The VSBC-4 and VM30 cards are supposedly very reliab EMPAC WORK ORDER NO : 8703-002904-000
CHANGES

05/21/2003 15:30:40
le and cost \$4083 and \$5345 ea respectively Jamie advises that two each of these in stock should cover the possible requirements for the next year. The remaining PBDout card has been problematic and he advises that 10 each of these should be stocked per vessel at \$993 each please check inventory levels and previous usage and raise req for the required card to achieve these stocking levels.

I have spoken also with Janet Le Blanc who has advised that if necessary to get this rolling asap and get our order in today she can r

Completion Date: 02 June 2003

Job Description	Job Number	Craft	Job Type	Total Hours
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20 May 2003

Deepwater Horizon

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TRN-INV-00034247

TDR038-028936

Yellow Pod, Solenoid Repair, Rebuildin 1550038018934 Well Control PM 12.00

Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8703-001359-000
 ADDED INFO
 03/11/2003 09:06:08
 WE ARE REBUILDING SEVEN EXTRA SOLENOIDS WE HAD IN OUR SHOP TO PREPARE FOR THE
 UPCOMING RIG MOVE. WE WILL PICK CRITICAL FUNCTION SOLENOIDS ON YELLOW POD AND SPARE POD
 TO SWAP OUT WITH AS PART OF OUR PREVENTATIVE MAINTENANCE PLANNING. THE SOLENOIDS WE
 PULL OFF OF EACH POD WILL BE REBUILT AND STOCKED FOR FUTURE RIG MOVES.

Completion Date: 04 June 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Project - Yellow Pod, Solenoid Repair,	1550038019861	Well Control	Corrective Maintenance	24.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8703-001798-000 SOLENOID REPAIR 06/01/2003 14:01:43 SOLENOIDS REBUILT BY MATT GOULET AND JEREMY MOORE IN MARCH.				

Completion Date: 07 June 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Solenoid Valve Repair Kits And E Recepta	1550038021576	Well Control	Other Maintenance	12.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8703-002915-000 POD SOLENOIDS 05/26/2003 19:16:13 REPLACED SOLENOIDS E-RECEPTACLES AND INSTALL KITS				

Completion Date: 08 June 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Need New Piston For Solenoid Valve	1550038019630	Well Control	PM	2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-001649-000
CARD READY
03/18/2003 08:51:57
ICN 00-52164
EMPAC WORK ORDER NO : 8703-001649-000
CARD REQUESTED
03/14/2003 18:20:50
CR#7768

NOUN: PISTON, VALVE, LOWER PISTON FOR SOLENOID VALVES ON POD CAMERON P/N #222808-02
CRIT CODE: CRITICAL

G/L: 591
COST \$ 80.74 EACH
SET OP /OQ (0 & 1)

VENDOR: CAMERON CONTROLS
CONTACT :MANNY GONZALES

PH#713-683-4600
EQUIPMENT USED ON: SOLENOID VALVES POD EMPAC WORK ORDER NO : 8703-001649-000
CREATE CARD
03/14/2003 10:54:04
PLEASE CREATE CARD FOR:
QTY NEEDED: 1

NOUN: PISTON, VALVE, LOWER PISTON FOR SOLENOID VALVES ON POD CAMERON P/N #222808-02
CRIT CODE: CRITICAL

G/L: 591
COST \$ 80.74 EACH
SET OP /OQ (0 & 1)

VENDOR: CAMERON CONTROLS
CONTACT :MANNY GONZALES

PH#713-683-4600
EQUIPMENT USED ON: SOLENOID VALVES POD EMPAC WORK ORDER NO : 8703-001649-000
PISTON F/ SOLENOID VALVE
03/14/2003 10:18:39
VENDOR: CAMERON CONTROLS
CONTACT :MANNY GONZALES
PH#713-683-4600
EQUIPMENT USED ON: SOLENOID VALVES POD

QTY: 2 EACH LOWER PISTON
P/N# 222808-02
COST \$ 80.74 EACH
NEED CARD, SET OP /OQ (1 & 1) EMPAC WORK ORDER NO : 8703-001649-000
PISTON FOR SOLENOID VALVE

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Deepwater Horizon

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TRN-INV-00034249

TDR038-028938

06/01/2003 14:37:30
JEREMY MOORE: PART IS HERE. WILL INSTALLED ASAP.

Completion Date: 13 July 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Parts To Rebuild Solenoid Valves From Ri	1550038021404	Well Control	PM	0.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8703-002797-000				
COILS AND E-CONNECTORS FOR POD				
05/18/2003 02:17:15				
PATRS REMOVED FROM WAREHOUSE:				
3 EA. COILS FOR SOLENOID VALVES STK # 0000000000037005				
3 EA. RECEPTACLE, E-CONNECTORS STK # 0000000000036764EMPAC WORK ORDER NO : 8703-002797-000				
COMPLETE				
07/13/2003 13:42:09				
PARTS USED PER M. GOULET.				

Completion Date: 13 August 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Ss-Adv-2003-001	1550038019308	Well Control	PM	2.00
Jul 09 2009				
Change Out 15 Sol Re				
Work Log: EMPAC WORK ORDER NO : 8703-001475-000				
SOLENOIDS RECEPTACLE NEW TYPE				
03/14/2003 09:45:23				
TOI#36764				
VENDOR: CAMERON CONTROLS				
NEEDED 15 EACH, TO REBUILD SOLENOID VALVES OLD TYPE TO NEW TYPE (ROCHESTER)				
CAMERON ADVISORY & TRANSOCEAN EMPAC WORK ORDER NO : 8703-001475-000				
RECEIVED PARTS				
08/13/2003 11:55:28				
RECEIVED PARTS				

Completion Date: 23 August 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Sm - Repair Lap Top For Pods & Petu Repa Jul 09 2009	1550038020481	Well Control	Corrective Maintenance	4.00
Work Log: EMPAC WORK ORDER NO : 8703-002307-000 LAP TOP AT CAMERON 04/29/2003 07:13:05 LAP TOP WAS TAKEN IN WITH CAMERON SERVICE HANDS. ER#8703-621EMPAC WORK ORDER NO : 8703-002307-000 LAP TOP FOR PODS 04/24/2003 15:45:44 VENDOR:CAMERON CONTROLS CONTACT: ED VILLAMAIN PH# 713-683-4600 DESP: REPAIR OF LAP TOP TOSHIBA TECRA, USED FOR FIRING POD IN TEST STAND. QUOTE#42003HL COST# FOR REPAIR \$1850.00 (SERVICE MATERIAL)				

EMPAC WORK ORDER NO : 8703-002307-000
LAP TOP NON-REPAIRABLE
06/24/2003 15:43:50
LAP TOP WAS JUNKED. NEW ONE TO BE ORDERED THRU I.T. DEPT. BY ELECT. SUPVR. CHARGED TO BOP
PODS PROJECT NO.

Completion Date: 24 September 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Sm - Install Fiberglass Grating On Top O	1550038023774	Well Control	PM	5.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-004333-000
FIBERGLASS GRATING PODS (SM)
07/25/2003 09:45:32
VENDOR: WELL SERVICE
CONTACT: HAROLD HULIN.
PH# 337-364-3025
EQUIPMENT USED ON: PODS
(SM)

3-PCS EA 3'9" X 6'0 1" THICK X 1-1/2" SQUARE MESH CORVEX FIRE RETARDANT
RESIN. YELLOW IN COLOR SLIP RESISTANT MENISCUS SURFACE MOLDED GRATING.

PRICE @ \$ 324.00 EA PC.

DELIVERY APPROX 3-DAYS

EMPAC WORK ORDER NO : 8703-004333-000
RECEIVED
09/24/2003 15:03:45
COMPLETED

Install New Seal Kits In 1-1/2" Pilot Op		1550038025799	Well Control	PM	12.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8703-005407-000 POCV RIGID CONDUIT 09/24/2003 15:06:48 INSTALLED SAME				

Completion Date: 26 September 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Installation Of Repair Kit For Pocv, Pro				
Jul 09 2009	1550038025891	Well Control	PM	1.00
Work Log: EMPAC WORK ORDER NO : 8703-005492-000 RIGID CONDUIT POCV 09/25/2003 09:25:19 INSTALLED 4 EA. KITS 1 1/2" POCV VALVES MARK HAY				

20 May 2010

Deepwater Horizon

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TRN-INV-00034252

TDR038-028941

Completion Date: 07 October 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - 730 Day - Replace Subsea Inte	1550038024306	Electronics	PM	10.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8703-004616-000			
	NOTES			
	09/10/2003 09:52:00			
	NAME: GENE FREVELE			
	COMMENTS: MOST OF THE CABLES WERE CHANGED OUT WHILE THE PODS WERE UP.			
	THERE WERE A COUPLE THAT WE HAD NOT RECIEVED YET. SEE MATT FOR DETAILS.			
	EMPAC WORK ORDER NO : 8703-004616-000			
	COMPLETION NOTES			
	10/04/2003 12:56:40			
	NAME: GENE FREVELE / MATT			
	STEPS COMPLETED: ALL			
	STEPS NOT COMPLETED: NONE			
	COMMENTS/FINDINGS: ALL PBOF CABLES REPLACED WITH VERSION 3 PBOF CABLES			
	PROCEDURE CHANGES NEEDED:			
	HOURS EQUIPMENT OUT OF SERVICE WHILE PERFORMING PM:			

Completion Date: 22 November 2003

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - Install New Anodes On All Thr	1550038020724	Well Control	PM	6.00

TRN-INV-00034253

20 May 2010

Deepwater Horizon

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TDR038-028942

JUL 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-002487-000
ANODES FOR PODS ALL THREE
04/23/2003 15:57:05

VENDOR: CAMERON CONTROLS, HOUSTON TX

DESP: ANODES 12" X 3" X 1.5" FOR PODS, CAMERON MARK2

QTY: 118 EA

COST EACH \$54.00

CAMERON P/N#-2711879-01

(CHARGE TO PROJECT I.D. # R512100025 / BOP MUX CONTROL & OVERHAUL)

EMPAC WORK ORDER NO : 8703-002487-000

CARD LOADED

04/30/2003 04:52:25

EMPAC #55323

CRIT: NORMAL

G/L: 590

VENDOR: CAMERON CONTROLS, HOUSTON TX

DESP: ANODES 12" X 3" X 1.5" FOR PODS, CAMERON MARK2

QTY: 118 EA

COST EACH \$54.00

CAMERON P/N#-2711879-01

(CHARGE TO PROJECT I.D. # R512100025 / BOP MUX CONTROL & OVERHAUL) EMPAC WORK ORDER

NO : 8703-002487-000

CARD REQUESTED

04/26/2003 13:40:25

CR#8229

CRIT: NORMAL

G/L: 590

VENDOR: CAMERON CONTROLS, HOUSTON TX

DESP: ANODES 12" X 3" X 1.5" FOR PODS, CAMERON MARK2

QTY: 118 EA

COST EACH \$54.00

29 May 2010

Deepwater Horizon

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TRN-INV-00034254

TDR038-028943

CAMERON P/N#-2711879-01

(CHARGE TO PROJECT I.D. # R512100025 / BOP MIX CONTROL & OVERHAUL) EMPAC WORK ORDER

NO : 8703-002487-000

CREATE CARD

04/25/2003 22:42:54

CRIT: NORMAL

G/L: 590

VENDOR: CAMERON CONTROLS, HOUSTON TX

DESP: ANODES 12" X 3" X 1.5" FOR PODS, CAMERON MARK2

QTY: 118 EA

COST EACH \$54.00

CAMERON P/N#-2711879-01

(CHARGE TO PROJECT I.D. # R512100025 / BOP MIX CONTROL & OVERHAUL) EMPAC WORK ORDER

NO : 8703-002487-000

RECEIVED

06/24/2003 16:04:52

RECEIVED EMPAC WORK ORDER NO : 8703-002487-000

INSTALLED NOV 2003

11/22/2003 15:55:09

ANODES INSTALLED DURING RIG NOV. 2003.

Rig Move-Mux Pod

1550038027362

Well Control

PM

8.00

20 May 2010

Deepwater Horizon

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TRN-INV-00034255

TDR038-028944

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-006253-000
FLOWMETER

11/10/2003 19:35:42

REMOVED FLOWMETER AND FOUND SMALL PIECE OF O-RING AND PLASTIC IN ROCK CATCHER.
FUNCTIONED TURBINE AND REINSTALLED. NOW OK.
FUNCTIONED POD VALVES TO REMOVE SALTWATER. FIRED ON PETU. ALL OK.
REPLACED ANODES.

Found six bottles 0 psi. in Y-pod. Replaced 4 from warehouse. Rebuilt two. Finished precharge on same.

Yellow pod flowmeter working. O-ring blown in one side of tubing conn. Replaced same.
PULLED ROCK CATCHER AND INSPECTED.

Installed new PBOF's. Will not pull SEM on Yellow. Problem of SEM's falling out may have been jumper from wet-mate to SEM. Eliminated this cable with new PBOF run straight from RJB. Will see if this will cure the problem.

INSTALLED CLEAN POD FILTERS

Fired up yellow pod with PETU and functioned same.
R/R ALL STINGER SEALS.
TIGHTENED ALL FTGS.

Completion Date: 25 November 2003

Job Description	Job Number	Craft	Job Type	Total Hours
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Rig Move

Jul 09 2009

1550038027390

Well Control

PM

12.00

Work Log: EMPAC WORK ORDER NO : 8703-006278-000
Y POD WORK DURING RIG MOVE
10/29/2003 11:31:20
PARTS CHARGED TO YELLOW POD DURING RIG MOVE

Completion Date: 14 February 2004

Job Description	Job Number	Craft	Job Type	Total Hours
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Need 1 Quart Bladders & Air Chucks And E

1550038028740

Well Control

PM

2.00

20 May 2010

Deepwater Horizon

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TRN-INV-00034256

TDR038-028945

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-006979-000
1 QUART 5000PSI BOTTLES PODS
11/29/2003 09:46:44
TOI# / NUMBER BELOW FOR ITEMS NEEDED
USED ON: ACCUMULATORS, 1 QUART PODS.
SUBSEA DEPT:

1-TOI#100100000000238 / 8 EACH

2-TOI#450000000014613 / 10 EACH NEED TO LOAD NUMBER , GLOBAL CAT#

3-TOI#0000000000222665 / 6 EACH EMPAC WORK ORDER NO : 8703-006979-000
RECEIVED
02/01/2004 07:09:55
RECEIVED EMPAC WORK ORDER NO : 8703-006979-000
RECEIVED 10 BLADDERS
02/14/2004 20:44:01
RECEIVED 10 EA. 1 QUART BLADDERS FROM WAREHOUSE. STK: 450000000014613

BLADDERS ARE IN SUB-SEA SHOP.

MARK HAY

Rig Move-Mux Pod

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-000829-000
SEE NOTES
02/14/2004 12:23:40
PULLED LMRP, 2-6-2004. FUNTION POD TO FLUSH SEA WATER OUT. CHECK PACKER SEALS CHECKED
OUT OK.

MATT GOULET 2-5-2004

1550038030914 Well Control PM 4.00

Completion Date: 25 February 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Need Regulator, Medium Duty For Nitrogen	1550038031312	Well Control	PM	1.00

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Deepwater Horizon

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TRN-INV-00034257

TDR038-028946

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-000989-000

REGULATOR FOR RISER SPIDER

02/18/2004 23:40:09

NEED REGULATOR FOR PRE-CHARGING BOTTLES ON RISER SPIDER,,, THAT ONLY REQUIRE 100 PSI. AND FOR CHARGING BLIND END BOTTLES ON RISER TENSIONERS. ORDERED BY MARK HAY.EMPAC WORK

ORDER NO : 8704-000989-000

GO GET IT

02/24/2004 07:19:23

MARK

IT SHOULD BE ON THE SHELF. STK #5714 EMPAC WORK ORDER NO : 8704-000989-000

RECEIVED REGULATOR

02/25/2004 00:14:46

REGULATOR WAS IN WAREHOUSE.

Completion Date: 09 March 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Need Solenoid Test Unit For Pods / Proje	1550038025343	Well Control	PM	10.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8703-005173-000				
TEST UNIT F/SOLENOIDS PODS				
09/05/2003 08:56:28				
VENDOR:OCEANEERING				
T.O.I.#-000000000052981				
QTY: 1 EACH				
PROJECT I.D # R512100025 / BOP MUX CONTROL & POD OVERHAUL.				
COST \$ 14,525.00EMPAC WORK ORDER NO : 8703-005173-000				
RECIEVED				
03/09/2004 13:05:26				
RECEIVED				

Completion Date: 30 May 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Change Out Batteries In Sem For Deadman,	1550038024053	Well Control	PM	4.00

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Deepwater Horizon

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TRN-INV-00034258

TDR038-028947

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-004490-000
BATTERIES FOR SEM/YELLOW POD

07/16/2003 06:38:41

VENDOR: CAMERON CONTROLS.

CONTACT: BRAD CODY.

DESP: BATTERIES FOR SEM FOR DEADMAN

PROJECT NO# R512100025 / BOP MUX CONTROL & POD OVERHAUL.

1- BATTERIES P/N# 2021604-01, NEED 3 EACH, COST \$916.00 EA

2- BATTERIES P/N# 2021600-01, NEED 1 EACH, COST: \$ 2719.11 EA

NOTE- BATTERIES ARE CHANGED OUT YEARLY FOR DEADMAN SYSTEM ,PER CAMERON
RECOMMENDATION.

*WILL NEED CARDS ON BATTERIES

EMPAC WORK ORDER NO : 8703-004490-000

CARD READY

07/18/2003 09:14:35

STOCK # 60625

1 EA - BATTERIES ASSEMBLY, SEM, MARK II CAMERON CONTROL P/N# 2021600-01,

\$ 2719.11 EA, ON REQUEST ONLY, G/L 591, CRIT: NORMAL.

STOCK # 25271

3 EA - BATTERIES P/N# 2021604-01, COST \$916.00 EA

NOTE- HAVE ONE OF THESE ON THE SHELF BUT IT IS OUTDATED, NEED TO DISPOSE OF THIS.

VENDOR: CAMERON CONTROLS.

CONTACT: BRAD CODY.

DESP: BATTERIES FOR SEM FOR DEADMAN

*****PROJECT NO# R512100025 / BOP MUX CONTROL & POD OVERHAUL.*****

EMPAC WORK ORDER NO : 8703-004490-000

CARDS REQUESTED

07/16/2003 19:14:35

CR#8888

1 EA - BATTERIES ASSEMBLY, SEM, MARK II CAMERON CONTROL P/N# 2021600-01,

\$ 2719.11 EA, ON REQUEST ONLY, G/L 591, CRIT: NORMAL.

ALREADY LOADED

STK #2021604-01 BATTERIES P/N# 2021604-01, NEED 3 EACH, COST \$916.00 EA

NOTE- HAVE ONE OF THESE ON THE SHELF BUT IT IS OUTDATED, NEED TO DISPOSE OF THIS.

VENDOR: CAMERON CONTROLS.

CONTACT: BRAD CODY.

DESP: BATTERIES FOR SEM FOR DEADMAN

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TRN-INV-00034259

TDR038-028948

*****PROJECT NO# R51210025 / BOP MIX CONTROL & POD OVERHAUL *****

EMPAC WORK ORDER NO : 8703-004490-000
CREATE CARD AND UPDATE INFO
07/16/2003 08:01:23
PLEASE CREATE CARD FOR :

1 EA - BATTERIES ASSEMBLY, SEM, MARK II CAMERON CONTROL P/N# 2021600-01,
\$ 2719.11 EA, ON REQUEST ONLY, G/L 591, CRIT: NORMAL.

ALREADY LOADED
STK #2021604-01 BATTERIES P/N# 2021604-01, NEED 3 EACH, COST \$916.00 EA
NOTE- HAVE ONE OF THESE ON THE SHELF BUT IT IS OUTDATED, NEED TO DISPOSE OF THIS.

VENDOR: CAMERON CONTROLS.
CONTACT: BRAD CODY.
DESP: BATTERIES FOR SEM FOR DEADMAN
*****PROJECT NO# R51210025 / BOP MIX CONTROL & POD OVERHAUL *****

EMPAC WORK ORDER NO : 8703-004490-000
SEE NOTES
01/03/2004 14:33:54
BATTERIES IN WAREHOUSE WILL CHANGE WHEN BOP ON DECK (RIG MOVE)
MATT GOULET EMPAC WORK ORDER NO : 8703-004490-000
BATTERIES ON BOARD
01/18/2004 09:37:59
CLOSE OUT WO. WORK TO BE COMPLETED ON NEXT MOVE.

Regulators Are Oscillating Causing Failu 1550038024268 Well Control PM 15.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-004580-000
CARD READY
08/08/2003 18:02:41
ST#00-81876

DESC: ORIFICE, HI WATT, JET IN BULKHEAD UNION, 1/4" X 1/4" SS, 3000 PSI WP, 6000 PSI PROOF
PRESSURE, FOR SUBSEA POD REGULATOR, LEE P/N JEHX0521450B

PRICE: \$312.24 EA

ADDITIONAL: CRITICAL SPARES OP 1 OQ 1

CONTACT : THE LEE COMPANY
IRVING, TEXAS

972-791-1010 EMPAC WORK ORDER NO : 8703-004580-000
CARD REQUEST NEEDED - TATE

08/08/2003 11:58:41

DESC: ORIFICE, HI WATT, JET IN BULKHEAD UNION, 1/4" X 1/4" SS, 3000 PSI WP, 6000 PSI PROOF
PRESSURE, FOR SUBSEA POD REGULATOR, LEE P/N JEHX0521450B

PRICE: \$312.24 EA

ADDITIONAL: CRITICAL SPARES OP 1 OQ 1

CONTACT : THE LEE COMPANY
IRVING, TEXAS

972-791-1010 EMPAC WORK ORDER NO : 8703-004580-000
ORIFICES FOR POD REGULATORS

08/06/2003 09:30:57

AS PER CORPORATE TO ORDER,

17 EA. ORIFICE, HI WATT, JET IN BULKHEAD UNION, 1/4" X 1/4" S.S., 3000 PSI WP, 6000 PSI PROOF
PRESSURE, FOR SUBSEA POD REGULATOR

\$312.24 EA.

P/N JEHX0521450B

CRITICAL SPARES OP 1 OQ 1

CONTACT : THE LEE COMPANY
IRVING, TEXAS
972-791-1010

NEED CARD. PLEASE ADVISE WHEN STOCK NO. IS AVAILABLE SO THAT THE OTHER RIGS CAN ORDER
SAME. EMPAC WORK ORDER NO : 8703-004580-000

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TRN-INV-00034261

TDR038-028950

SEE NOTES

02/15/2004 16:18:44
 INSTALLED 5 EACH .060 ORIFACE IN BLUE POD REGULATORS. WILL DO OTHER PODS WHEN BOP ON
 DECK BACK SETTING ATLANTIS (3# 5#, 7# 61#, 63#) BULKHEAD PLATE. NOTE PULLED READ BACK
 BOTTLES OFF POD BLUE

MATT GOULET 2-8-2004 EMPAC WORK ORDER NO : 8703-004580-000
 YELLOW POD ORIFICES
 05/10/2004 08:00:01
 INSTALLED 5/04 5 EA. AL COTTEN EMPAC WORK ORDER NO : 8703-004580-000
 WHITE POD
 05/30/2004 07:31:30
 INSTALLED 5 EA. 5/27/04

EMPAC WORK ORDER NO : 8703-004580-000
 BLUE POD
 05/30/2004 07:32:16
 INSTALLED 5 EA. 4/2004

Completion Date: 10 June 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Ss To Replace Sem O'Rings - Store Keepe	1550038033678	Well Control	PM	6.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8704-002318-000				
POD SEM O'RINGS				
04/29/2004 12:00:02				
3 EA O'RING STOCK NO. 4093 - 158				
3 EA O'RING 0 - 426218				
NEEDED ASAP FOR NEW POD- RCB MODIFICATIONS. CAN BE HAND CARRIED BY CAMERON SERVICE HANDS WHEN THEY COME TO INSTALL SOFTWARE FOR UPGRADE. AVAILABILITY OF ITEMS CAN BE CHECKED THRU BRAD CODY AT CAMERON. CAN BE TWO DAY FED-EX TO RIG ALSO POSSIBLE. THEY ARE NEEDED NOW! EMPAC WORK ORDER NO : 8704-002318-000 RECEIVED 05/30/2004 07:29:23 RECEIVED FROM ENTERPRISE				

Completion Date: 02 August 2004

Job Description	Job Number	Craft	Job Type	Total Hours
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Need Bulb And Lamp For Distribution Pane

Jul 09 2009

1550038031268 Well Control PM

0.50

Work Log: EMPAC WORK ORDER NO : 8704-000956-000
DISTRIBUTION PANEL B / CAMERON
02/16/2004 12:22:36
VENDOR: CAMERON CONTROLS
ICN# 426212 NEED 1 EACH
ICN# 1028-1767 NEDD 1 EACH
USED ON: DISTRIBUTION PANEL B/ DAMAGED LAMP HOLDER 230 VOLTS

CREATE CARDS FOR THESE ITEMEMPAC WORK ORDER NO : 8704-000956-000
LOAD AND ADD
02/16/2004 12:31:06
LOAD AND ADD ITEMS AS PER SS NOTES

VENDOR: CAMERON CONTROLS
ICN# 426212 NEED 1 EACH
ICN# 1028-1767 NEDD 1 EACH
USED ON: DISTRIBUTION PANEL B/ DAMAGED LAMP HOLDER 230 VOLTS

G/L 591
CRIT:NORMAL
ORO
BOM
EMPAC WORK ORDER NO : 8704-000956-000
NEEDS COMPLETION BY ET
08/01/2004 13:04:06
"EMPAC WORK ORDER NO : 8704-000956-000
WORK COMPLETE
08/02/2004 06:40:15
SBERTONE
REPAIRED LIGHT ON PANEL.

Completion Date: 10 August 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Install Repair Kit In 3/4" Cameron Sli	1550038037815	Well Control	PM	4.00

TRN-INV-00034263

TDR038-028952

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-004275-000
COMPLETE
08/10/2004 14:14:27
INSTALLED NEW REPAIR KIT IN 3/4" SLIDE VALVE.
MARK HAY

Completion Date: 05 September 2004

Job Description	Job Number	Craft	Job Type	Total Hours
365 Day-Mux Pod	1550038039054	Well Control	PM	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-004850-000 SEE NOTES 09/05/2004 11:56:19 BOP SUB SEA, WILL GET RIG MOVE MATT GOULET			

Completion Date: 19 October 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Sm - Repair Pbof Cable To Flowmeter	1550038030291	Well Control	Corrective Maintenance	24.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-000403-000 PBOF TO FLOWMETER YELLOW 01/25/2004 08:19:52 SERVICE MATERIAL A new assembly is \$883.00 each. We will replace the assembly you sent back at 50% of the cost for \$441.50 Seacon's part number is #7879-101 Cameron part number is 202 0716-01-04 Delivery will be 3 weeks ARO F.O.B.: El Cajon, CA AL COTTEN STEVE DONOHUE EMPAC WORK ORDER NO : 8704-000403-000 BEYOND REPAIR 05/25/2004 15:26:05 CABLE BEYOND REPAIR. ORDERD NEW ONE.			

Completion Date: 11 November 2004

Job Description	Job Number	Craft	Job Type	Total Hours
Need 4-Way Dummy Plugs For Pod Stk: 3-	1550038041595	Well Control	PM	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-006056-000			
	RECIEVED SAME			
	11/11/2004 11:29:58			
	SENT TO STEVE DONOHUE			

Completion Date: 14 November 2004

Job Description	Job Number	Craft	Job Type	Total Hours
1/4" Regto Be Tested For Pod	1550038040758	Well Control	PM	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-005626-000			
	DATESTART : 10/09/2004 03:48:20.000000			
	DATECOMPLETE : 11/14/2004 23:59:59.000000			
	No Work Reported in EMPAC			

Completion Date: 13 January 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Pods - Rachel Strap For Sem For New Conn	1550038039546	Well Control	PM	3.00

TRN-INV-00034265

TDR038-028954

20 May 2010

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-005170-000
RACHET CLAMPS F/ATA-FITA CONN
09/11/2004 15:06:40
VENDOR: ABCO PROCUCT INC.
HOUSTON TX,77265
CONTACT: WILLIAM SHULTS
PH#: 713-871-8020
QTY: 3 EACH
NEED CARDS LOADED
PART NUMBER FOR RACHET CALMPS (P/N-2419.21)
DESP: RATCHET CLAMP ASSEMBLY, 4.23" LINE X 16" OD (P/N-2419.21) TO SECURE NEW ATA/FITA
CONNECTOR ON SEM
COST\$ 595.00 EACH * NOTE IF THREE RIGS BUY 9 EACH COST GOES DOWN TO \$ 335.00 EACH SEE
BELOW

The Nautilus approves 3.
Can Janet order and charge to the rigs that agree or do we each order 3 ourselves?

David

Attached is a quote from ABCO for a strap ratchet clamp. This would be used to support the ATA-FITA connector when plugged directly into the SEM. The strap would wrap around the SEM housing and the connector body, with a poly urethane spacer between the two. The ratchet assembly is stainless, but no metallic parts come in contact with either the SEM or connector, so there are no electrolysis concerns.

As you can see there is quite a price break if we order 9 at the same time, that would be 3 per rig. Two in service one spare.

Regards
Steve

Good morning Steve. I have attached the drawing and the quotation for the clamps we discussed last week. Please note that if the quantity is only (3)clamps the price would be greater. The key is to get all of the rigs to agree and purchase the (9) clamps at once. Also we will confirm the stand off between the components before manufacture.

I will be calling you later to discuss this matter.

Thanks & regards,
William L. Shults
Sales Mgr.
ABCO Products Inc.

Tel: 713.871.8020

20 May 2010

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TRN-INV-00034266

TDR038-028955

Fax: 713.871.0492
Cell: 713.806.7699
EMPAC WORK ORDER NO : 8704-005170-000
CARD REQUESTED
09/30/2004 23:06:46
ST# 87813

VENDOR: ABCO PROCUCT INC.
HOUSTON TX.77265
CONTACT: WILLIAM SHULTS
PH#: 713-871-8020
QTY: 3 EACH
NEED CARDS LOADED
PART NUMBER FOR RACHET CALMPS (P/N-2419.21)
DESP: RATCHET CLAMP ASSEMBLY, 4.23" LINE X 16" OD (P/N-2419.21) TO SECURE NEW ATA/FITA
CONNECTOR ON SEM
COST\$ 595.00 EACH *NOTE IF THREE RIGS BUY 9 EACH COST GOES DOWN TO \$ 335.00 EACH SEE
BELOW

The Nautilus approves 3.
Can Janet order and charge to the rigs that agree or do we each order 3 ourselves?

David EMPAC WORK ORDER NO : 8704-005170-000
RACHET STRAPS TO SHORT
01/13/2005 08:05:34
THE RACHET STRAPS WERE TO SHORT,,,, VENDOR WILL SEND US THREE MORE NEW ONES.

Rig Move-Mux Pod	1550038044174	Well Control	PM	8.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-007397-000 FUNCTIONED SAME 01/13/2005 08:48:12 DID A COMPLETE FUNCTION ON POD			
Replace Plug Flange 16 Awg, 2m Cameron C	1550038044560	Well Control	Corrective Maintenance	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-000113-000 INSTALLED SAME IN YELLOW POD 01/13/2005 06:47:39 KEN YEO,, WITH CAMERON INSTALLED SAME IN YELLOW POD...1-2-05			

Completion Date: 14 January 2005

Job Description	Job Number	Craft	Job Type	Total Hours
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Bop Control System Not Talking To Hitech

1550038025274 Electronics

Corrective Maintenance

6.00

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TRN-INV-00034268

TDR038-028957

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8703-005128-000
TROUBLESHOOTING PROBLEM

09/03/2003 23:26:13

JAY

TESTED THE FIBER PAIR THAT THE DCI WAS CONNECTED TO FROM THE BOP CONTROL BOX IN ELECTRICAL SHOP. EVERYTHING TESTED FINE. THE TRANSMITS JUST BLINK IN TIME WITH THE TRANSMIT LED ON THE CORRESPONDING PLC. THERE IS NO RECEIVE LEDS BLINKING ON ETHIER PLC. THINKING THAT THERE WAS A PROBLEM WITH THE ADAMS CONVERTER. SWAPPED IN THE ONE FROM THE CABINET IN THE BOP CONTROL ROOM AT BOTH ENDS. THE SYMTOM DID NOT CHANGE. NOTEWORTHY IT THAT WHEN THE 232 SIDE OF THE ADAMS AT THE DCI END IS CONNECTED THE CP CARD ON THE DCI DOES SHOW A FAULT. THE CAMERON SIDE SHOWS NO SIMILAR REACTION. TROUBLESHOOTING TO CONTINUEEMPAC WORK ORDER NO : 8703-005128-000

UPDATE 3

11/16/2003 20:22:04

JAY

BEFORE KEN YEO OF CAMERON LEFT WE DISCUSSED THIS PROBLEM. BASICALLY WITHOUT THE PROGRAM THAT HE DID NOT BRING HE WAS NOT ABLE TO SEE WHAT HE NEEDED TO HELP US WITH THIS PROBLEM. HOWEVER WE DID DISCUSS WHAT COULD BE DONE. I HAVE DONE WHAT WAS DISCUSSED AND DETAILS FOLLOW.

WE DISCUSSED THAT PERHAPS IT WAS THE FISO OR THE CPU OR EVEN THE EPROM. WE CAN ONLY SWAP THE CPU AND THE FISO WITH THE CARDS FROM THE B SYSTEM. THIS I DID WITH NO SUCCESS OR CHANGE IN THE PROBLEM. I TRIED EVERY COMBINATION POSSIBLE AND THERE WAS NO CHANGE OR IMPROVEMENT WITH THE COMMUNICATIONS TO THE HITEC SYSTEM. THE FISO CARD HAS ACTIVITY ON THE LED AS DOES THE CPU, BUT NOTHING CHANGES ON THE HITEC SCREENS. THIS WAS AND REMAINS THE PROBLEM. PASSING TO ELECTRICAL SUPERVISOR TO DISCUSS FURTHER OPTIONS. EMPAC WORK ORDER NO : 8703-005128-000

UPDATE 2

12/07/2003 03:59:17

JAY

KEN YEO CONNECTED HIS COMPUTER AND OPENED A PROGRAM THAT SPIT DATA INTO HITEC, ONCE, AND THEN THE PROGRAM ON THE LAPTOP LOCKED UP. THE SYSTEM STILL DOES NOT TALK TO HITEC.

AS PER KEN YEO I SWAPPED THE FISO CARD FROM THE B DIST BOX, WITH NO SUCCESS. NEXT I WILL TRY TO SWAP IN THE CPU FROM B. NOTE THE EPROM MUST BE CHANGED IN ORDER FOR THE CPU TO WORK IN THE A DIST BOX. EPROMS ARE SET FOR ONE OR THE OTHER.

LEFT THE B FISO IN THE A PLC. THE A FISO AND B CPU ARE IN THE BOTTOM OF THE A DIST BOX.

WILL CONTINUE TOMORROW. EMPAC WORK ORDER NO : 8703-005128-000

UPDATE 4

02/24/2004 02:17:51

CAN NOT TROUBLE SHOOT DUE TO OPERATIONS. WILL CONTINUE WHEN STACK HITS THE DECK.

TOMMY

Completion Date: 18 February 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Tracking Sending Used Cameron 1/4" 2	1550038046163	Well Control	Corrective Maintenance	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-001018-000 TRACKING 02/17/2005 15:28:02 BILL STRINGFELLOW			
TRACKING. SENDING USED CAMERON 1/4" 2 POSITION 4 WAY VALVES TO CAJUN EXPRESS. SENDING A TOTAL OF 21 VALVES. PART NUMBER 309825-12. EMPAC WORK ORDER NO : 8705-001018-000 DETAILS 02/18/2005 13:04:00 SHIPPED FROM RIG ON CARGO MANIFEST # 5121-2819 FEBRUARY 18 TO BE FORWARDED TO CAJUN EXPRESS				

Completion Date: 19 February 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Pods - Cap Screws For Blanking Plates Fo	1550038041854	Well Control	Corrective Maintenance	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-006231-000 CAP SCREWS AND WASHERS POD 11/03/2004 07:31:44 VENDOR: CAMERON CONTROLS NEED CARD LOADED FOR CAP SCREWS. EQUIPMENT USED ON : POD BLANK PLATES FOR 1/4" VALVES 1-P/N-702505-04-00-12, 100 EACH, COST \$ 1.00 EACH APPROX 2- P/N-702529-10-02 , ICN#1006-3769 47EA IN (WH) NEED 53 EACH WASHERSEMPAC WORK ORDER NO : 8704-006231-000 CARD REQUEST 11/08/2004 19:00:26 CR# 87-13281 1-P/N-702505-04-00-12, CAPSCREW 1.250 X .312-18 100 EACH, COST \$ 1.00 EACH APPROX			

Completion Date: 22 February 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Install Grading, Steps, And Hand Rails	1550038045367	Welder	PM	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-000674-000 JOHN COLLINS 02/22/2005 05:59:04 INSTALLED LAST SECTION OF HAND RAIL AND PUT END CAPS ON THE OTHER RAILS THAT I INSTALLED LAST HITCH JOB IS COMPLETED EMPAC WORK ORDER NO : 8705-000674-000 TATER 01/29/2005 17:10:25 FINISHED ALL BUT ONE SMALL SECTION OF HAND RAILS AND PUT END CAPS ON HAND RAILS THAT I HAVE ALL READY COMPLETED.			

Completion Date: 06 April 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move - SI - 2 Cameron Service Perso	1550038043280	Well Control	Corrective Maintenance	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8704-006902-000 LABOR 12/11/2004 07:56:11 2 GUYS, 8 DAYS, \$1800 PER DAY PER PERSON.			

Completion Date: 28 May 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod	1550038047770	Well Control	PM	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-001842-000 OUT OF SERVICE 05/28/2005 16:02:27 BILL STRINGFELLOW THIS POD IS OUT OF SERVICE AT THIS TIME. IT WAS REPLACED WITH THE # 3 (WHITE) POD IN DECEMBER OF 2004.			

Completion Date: 28 June 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Change Pilot Filters	1550038050418	Well Control	Corrective Maintenance	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-003474-000 REPLACED FILTERS 06/28/2005 17:21:33 CHANGED ALL FILTERS			

Completion Date: 02 July 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod	1550038050662	Well Control	PM	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-003601-000 REPLACED VALVES 07/02/2005 10:20:36 REPLACED 1" RAM VALVE AND 7 EA. 1/4" POD VALVES.. SENT POD FRAME IN TO BE BLASTED & PAINTED			

Completion Date: 21 July 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Desiccant Silicagel Bags For Pod	1550038044617	Well Control	Corrective Maintenance	2.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-000154-000 IN WAREHOUSE 05/06/2005 17:14:01 IN WAREHOUSE			

Completion Date: 04 August 2005

Job Description	Job Number	Craft	Job Type	Total Hours
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Solenoids, Cameron Controls, Pod, Rebuild 1550038052107 Well Control Corrective Maintenance 30.00
 Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8705-004431-000
 CLOSED
 08/04/2005 16:41:40
 CLOSED BY K. PETERSEN

Completion Date: 06 August 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Repair Kits For Pod	1550038052437	Well Control	Corrective Maintenance	1.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8705-004675-000 NOTES 08/06/2005 06:31:33 THIS WO REPLACED BY 4820—DGATES				

Completion Date: 27 August 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Rebuild 1/4" Pod Valve On Pod #2	1550038051410	Well Control	Corrective Maintenance	22.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8705-004030-000 UPLANED WORK ORDER 07/07/2005 19:28:05 PLEASE CANCEL SIR AND ADD PROJECT CODE ON PAGE 2. REISSUE ITEMS ONCE PROJECT CODE				

Completion Date: 17 September 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Pilot Regulator With A Better De	1550038050948	Well Control	Corrective Maintenance	1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-003777-000
PILOT REGULATOR
06/20/2005 20:23:08
BILL STRINGFELLOW

NEED TO ORDER NEW GILMORE REGULATOR FOR POD. THIS IS TO BE CHARGED TO 2005 BOP
MAINTENANCE BUDGET. THIS IS PER STEVE DONOHUE AND JOHN KEETON.

TO BE ORDERED FROM:
BUXTON INTEREST INC.
9826 WHITHORN DRIVE
HOUSTON, TX. 77095
PHONE: (281) 855-4237

DESC.	P/N	ICN	QTY.	COST
VALVE, REGULATOR, HYDRAULIC SUBSEA, 1/2" SAE, (T.C. MATERIAL)	44476-2		1	\$7,455.00
GILMORE EMPAC WORK ORDER NO : 8705-003777-000				
CARD REQUESTED				
06/25/2005 15:36:26				
CARD REQUEST 14581				

VALVE, REGULATOR, HYDRAULIC SUBSEA, 1/2" SAE, (T.C. MATERIAL), GILMORE P/N 44476-2 EMPAC WORK
ORDER NO : 8705-003777-000
CREATE CARD AND ORDER 1
06/25/2005 12:40:13
PLEASE CREATE CARD FOR FOLLOWING VALVE:

NOUN - VALVE
QUALIFIER - REGULATOR
DESCRIPTION - VALVE, REGULATOR, HYDRAULIC SUBSEA, 1/2" SAE, (T.C. MATERIAL), GILMORE P/N
44476-2

\$7,455.00
ORO
NORMAL
BOM: 87 SUBSEA CONT. POD #2 YELLOW

TO BE ORDERED FROM:
BUXTON INTEREST INC.
9826 WHITHORN DRIVE
HOUSTON, TX. 77095
PHONE: (281) 855-4237

Completion Date: 08 October 2005

Job Description	Job Number	Craft	Job Type	Total Hours
730 Day-Mux Pod	1550038053790	Well Control	PM	3.00

Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8705-005489-000
OUT OF SERVICE
10/08/2005 15:45:25
BILL STRINGFELLOW

THIS POD HAS BEEN SENT IN AND WILL BE TRANSFERRED TO THE NAUTILUS.

365 Day-Mux Pod	1550038053920	Well Control	PM	3.00
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Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8705-005569-000
OUT OF SERVICE
10/08/2005 15:53:43
BILL STRINGFELLOW

THIS POD IS OUT OF SERVICE AT THIS TIME. IT WILL BE TRANSFERRED TO THE NAUTILUS.

Completion Date: 09 October 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Pods - Sm - Need Three Each For 90 Degre	1550038038033	Well Control	Corrective Maintenance	8.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-004458-000
CARD NEEDED ?

08/13/2004 18:28:19

Item Description Qty Unit Price Delivery ARO

1A MSSSL R/A FCR-ADAPTER per sketch MK07304-01 3 \$991.08 EA 4 WKS ARO

VENDOR:SEACON BRANTNER & ASSOCIATES
HOUSTON TEXAS
PH#281-599-3509
CONTACT: MIKE Mc KINLEY
NEED CARD LOADED

EMPAC WORK ORDER NO : 8704-004458-000
SHIP ONE TO STEVE DONOHUE
08/24/2004 11:58:12
1 EA. FIXTURE NEEDS TO BE SHIPPED TO STEVE DONOHUE IN HOUSTON TO BE INSTALLED ON WHITE
POD BEING REPAIRED AT CAMERON CONTROLS HOUSTON EMPAC WORK ORDER NO : 8704-004458-000
MSSSL R/A FCR ADAPTER (SEM'S)
03/11/2006 10:19:38

VENDOR:SEACON BRANTNER & ASSOCIATES
HOUSTON TEXAS
PH#281-599-3509
CONTACT: MIKE Mc KINLEY
NEED CARD LOADED

Brantner & Associates, Inc.

15720 Park Row Ste. 200
Houston, Texas
Tel: (281) 599-3509
Fax: (281) 599-3716
E-mail: mmckinley@seaconbrantner.com
Website: www.seaconbrantner.com

Attention: Steve Donohue From: Mike McKinley
Company: Transocean Date: August 10, 2004

Subject: Quote Control#: MMQ072804-01

Seacon7/Brantner & Associates are pleased to present to you the following quotation:

20 May 2010

Deepwater Horizon

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TRN-INV-00034276

TDR038-028965

Item Description Qty Unit Price Delivery ARO

1A MSSL R/A FCR-ADAPTER per sketch MK07304-01 3 \$991.08 EA 4 WKS ARO

SEA CON Standard Terms & Conditions Apply
Delivery is based on current workload and can be confirmed upon receipt of order.
Terms: Net 30 for established accounts; Visa/Mastercard orders accepted.
Pricing valid: 30 days
Fob: El Cajon, Ca

Best regards,

Mike McKinley

Pods - Repair Kits For 1/4" Manual Reg L 1550038040771 Well Control Corrective Maintenance 1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8704-005637-000

DATESTART : 10/09/2004 22:29:07.000000

DATECOMPLETE : 10/09/2005 23:59:59.000000

No Work Reported in EMPAC

Sm - Send In # 2 Pod Frame To Be Blasted 1550038051415 Well Control PM 2.00

20 May 2010

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TRN-INV-00034277

TDR038-028966

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-004036-000
BLAST & PAINT FRAME
06/30/2005 17:18:46
SEND POD FRAME TO:

TESCO
50 CONCORD ROAD
HOUMA, LA. 70360

ATTN:

Al Hebert
Operations Manager
Tesco, Inc
Phone (985) 872-6450
Fax (985) 872-9200

Paint spec for the pod frame. Harvey is suggesting Tesco in Amelia to paint the pod frames

-----Original Message-----

From: Delaney, Harvey
Sent: Thursday, June 09, 2005 1:03 PM
To: Donohue, Steve
Subject: RE: Paint

Hey Steve; We have a company in Amelia called Tesco that does a lot of work for us down there and they do a good job.

Harvey Delaney
Coatings Supt.
NAR Technical Field Support
Office 832-587-8734
Cell 713-201-1268

--
Subject: Paint
Harvey,

Also need a blast/paint spec. Sub Sea Service, top coat white. The frame wraps around the pod, and does see some bumps etc as the pod is installed/removed from the slack, need a paint system that will be a little tolerant to the

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bumps, and not chip off.

SEE PAINT SPECIFICATION FOR POD FRAME:
Surface Preparation

- " Ultra High Pressure Water blast
- " All areas to be blasted shall be free of grease, oil, and other contaminants prior to any blasting.
- " UHP blast all surfaces to a standard of SSPC SP-10 "Near white Metal" with a minimum nozzle pressure of 1700 bar (25,000 p.s.i.).
- " Grit Blast
- " All areas to be grit blasted are to be degreased and fresh water washed to insure a clean surface prior to blasting.
- " All areas to be coated shall be grit blasted to a standard of SSPC SP-10 "Near White Metal" with a minimum profile of 1.5 mils

" Coatings System

- " Apply a stripe coat to all lips, welds, and sharp edges of Amerlock II high build epoxy (buff) for immersion at a minimum of 3 mils.
- " Apply a full prime coat of Amerlock II high build epoxy (buff) for immersion at 6 to 8 mils.
- " Apply a stripe coat to all lips, welds, and sharp edges of Amerlock II high build epoxy (white) for immersion at a minimum of 3 mils.
- " Apply a full finish coat of Amerlock II high build epoxy "WHITE" for immersion EMPAC WORK ORDER NO : 8705-004036-000 COMPLETE
- 10/09/2005 16:28:31
- BILL STRINGFELLOW

FRAME WAS PAINTED BLUE. IT WAS SUPPOSE TO BE PAINTED WHITE. DUE TO THE NAUTILUS LOOSING THERE LMRP DURING HURRICANE KATRINA OUR SPARE POD WAS SENT TO THEM. THIS FRAME WILL BE SENT IN TO GO WITH THE POD. EMPAC WORK ORDER NO : 8705-004036-000
BLAST & PAINT FRAME
06/30/2005 17:18:46
at 6 to 8 mils.

Replacement O-Rings For Pod Valves Stk:				1550038053472	Well Control	Corrective Maintenance	1.00
Jul 09 2009	Work Log:	EMPAC WORK ORDER NO : 8705-005360-000					
	ORINGS						
	08/24/2005 15:02:53						
	O-RINGS ARE FOR WAREHOUSE STOCK,,,,, SET OP/OQ @ 10/10						
Ship Yellow Pod To Cameron - Berwick, A				1550038054187	Well Control	Corrective Maintenance	3.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-005707-000
TRACKING
09/11/2005 10:09:12
BILL STRINGFELLOW

TRACKING TO SEND YELLOW POD IN AS PER STEVE DONOHUE.

SEND IN TO CAMERON FOR POSSIBLE USE ON THE NAUTILUS LMRP. THIS IS REQUESTED BY STEVE DONOHUE. SEND TO CAMERON IN BERWICK, LA. AND TO THE ATTENTION OF RUSSELL BOURGOIS.

THE COMPLETE POD IS BEING SENT IN TWO SECTIONS. THE ELECTRONICS PACKAGE AND THE HYDRAULIC PACKAGE. ALSO THERE ARE FOUR 3/4" LIFTING EYES WITH THE ELECTONICS PACKAGE. EACH PACKAGE IS SHIPPED ON A SHIPPING SKID. THESE SKIDS BELONG TO THE HORIZON. THE ELECTRONICS PACKAGE SKID HAS BEEN MODIFIED SO PILOT HOSES AND FITTINGS DO NOT HAVE TO BE REMOVED.

ELECTRONICS PACKAGE:
ASSEMBLY # 2020708-21-01
SERIAL # 11357281-03
DATE 3/22/00

HYDRAULICS PACKAGE:
ASSEMBLY# 2020708-21
SERIAL # 11376970-2
DATE 5/11/00 EMPAC WORK ORDER NO : 8705-005707-000
SHIPPED
09/27/2005 10:29:49
CM 5121-3136

MMR # 05-5121-021

THE COMPLETE POD IS BEING SENT IN TWO SECTIONS. THE ELECTRONICS PACKAGE AND THE HYDRAULIC PACKAGE. ALSO THERE ARE FOUR 3/4" LIFTING EYES WITH THE ELECTONICS PACKAGE. EACH PACKAGE IS SHIPPED ON A SHIPPING SKID. THESE SKIDS BELONG TO THE HORIZON. THE ELECTRONICS PACKAGE SKID HAS BEEN MODIFIED SO PILOT HOSES AND FITTINGS DO NOT HAVE TO BE REMOVED.

ELECTRONICS PACKAGE:
ASSEMBLY # 2020708-21-01
SERIAL # 11357281-03
DATE 3/22/00

HYDRAULICS PACKAGE:
ASSEMBLY# 2020708-21
SERIAL # 11376970-2

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TDR038-028969

DATE 5/11/00

Completion Date: 14 October 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Created This Work Order To Replace Minor	1550038052716	Well Control	Corrective Maintenance	12.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-004820-000			
	COMPLETE			
	10/14/2005 11:37:55			
	INSTALLED ALL NEW R/K'S			

Completion Date: 11 November 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Connector, Sub Sea, 24 Way Female Pie Co	1550038056659	Well Control	Corrective Maintenance	1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-007082-000
LOAD AND SET OPI/OQ FOR STOCK

11/10/2005 19:45:20

PART FOR STOCK ONLY DO NOT ADD TO PAGE 4.
ONCE OPI/OQ HAS BEEN SET PLEASE CLOSE WORK ORDER.

AS PER CAMERON RECOMMENDATION PLEASE ADD STK # 405725

CRITICAL

BOM: 87 BOP CONTROL PODS

OP/OP 1/1EMPAC WORK ORDER NO : 8705-007082-000

PRICES AS PER CAMERON

11/11/2005 20:12:35

-----Original Message-----

From: Schwartz, Amy [mailto:schwartz@camerondiv.com]

Sent: Friday, November 11, 2005 2:24 PM

To: subsea

Cc: Gaspard, Daniel L.

Subject: RE: Price

Mark

part number 2197088-01-24 replaces part number 619088-15-14-01

List price \$2,906.00 each, less 20 percent discount for net \$2,324.00 each,

Delivery: 12 to 14 weeks

FOB Katy Texas plant

subject to prior sale

From: subsea [mailto:subsea@dwh.rig.deepwater.com]

Sent: Friday, November 11, 2005 6:53 AM

To: Schwartz, Amy

Cc: Gaspard, Daniel L.

Subject: Price

Amy,

Can I please get a price and delivery on a Pie connector? P/N: 619088-15-14-01

Mark Hay

subsea Eng.

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Rig ? 713-232-8262

Fax ? 713-232-8268

subsea@dwh.rig.deepwater.com

EMPAC WORK ORDER NO : 8705-007082-000

NEED CARD LOADED FOR

12/14/2005 18:25:45

QTY NEEDED IS 2 EA. CONNECTOR, SUB SEA, 24 WAY FEMALE PIE CONNECTOR #6 X 4 CONTACT BOP

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TDR038-028971

FLANGE TO INTERNAL, CAMERON P/N 2197088-01-24

GLOBAL STK:405725

THIS IS FOR WAREHOUSE STOCK

CONTACT:
CAMERON CONTROL

Completion Date: 23 December 2005

Job Description	Job Number	Craft	Job Type	Total Hours
Project - Replacement Repair Kits For 1	1550038051452	Well Control	Corrective Maintenance	2.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8705-004072-000 IN WAREHOUSE 12/14/2005 17:08:44 R/K'S ARE IN THE RUBBER ROOM,, WILL GET THEM OUT WHEN BOP'S ARE PULLED M HAYEMPAC WORK ORDER NO : 8705-004072-000 COMPLETE 12/23/2005 23:45:40 COMPLETE 12/23/05 O.MC.			

Completion Date: 04 January 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Sm - Send In Pod Frame To Have It Re-Pai	1550038057789	Well Control	Corrective Maintenance	5.00

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-007638-000
PAINT FRAME WHITE
12/08/2005 09:42:56
SEND IN POD FRAME TO HAVE IT RE-PAINTED SHOULD HAVE BEEN PAINTED WHITE,, BUT WAS PAINTED
BLUE, THERE WILL BE NO CHARGE FOR THIS EMPAC WORK ORDER NO : 8705-007638-000
SHIPPED
12/10/2005 16:46:52
CARGO MANIFEST 5121-
SUBSEA POD FRAME,
TO BE PAINTED WHITE - FREE OF CHARGE

SHIP TO
TESCO
50 CONCORD ROAD
HOUMA, LA. 70360
Al Hebert - Operations Manager
Phone (985) 872-6450
Fax (985) 872-9200 EMPAC WORK ORDER NO : 8705-007638-000
COMPLETE
01/03/2006 17:39:33
BACK ON RIG,,, INSTALLED ON #2 POD

Completion Date: 10 February 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Repair # 2 Pod And Install New Amf/ Dead	1550038059015	Well Control	Corrective Maintenance	10.00
Jul 09 2009				
Work Log: EMPAC WORK ORDER NO : 8706-000097-000 INSTALL NEW AMF/ KIT12-29-05 02/10/2006 13:13:54 AMF/ DEADMAN SYSTEM (BATTERIES) WAS INSTALLED ON THE SEM. UNIT WAS TESTED PER CAMERON PROCEDURE. WORK DONE ON 12-29-05 LABOR: 95 MAN HOURS TO INSTALL NEW AMF/ DEADMAN KIT AND TO TEST THE SEM @ 109.00/ HR. TOTAL COST: 17,786.13				

Completion Date: 21 February 2006

Job Description	Job Number	Craft	Job Type	Total Hours
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TRN-INV-00034284

TDR038-028973

The Information On This W O Was On 8706

Corrective Maintenance 1.00

Well Control

1550038060490

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8706-001083-000

INFORMATION FROM 8706-4133

02/20/2006 15:06:11

BILL STRINGFELLOW

THE INFORMATION ON THIS W.O. WAS ON 8706-679. THE ACTUAL WORK WAS DONE TO POD # 2 BUT WRITTEN UP ON THE POD # 3 ASSET.

REBUILT (1) ANNULAR REGULATOR FOR POD NO. 3 12/15/05 O.MC.
REBUILT (1) 3/4" VALVE FOR THE LMRP OR WELLHEAD CONNECTOR. 12/16/05 O.MC.
REBUILT (1) ACCUMULATOR CHARGE VALVE WITH "PREMIUM" KIT. 12/16/05 O.MC.
REBUILT (1) 3/4" REGULATOR FOR LMRP OR WELLHEAD CONNECTOR 12/18/05 O.MC.
REBUILT (4) 1/4" POD VALVES 12/19/05 O.MC.
REBUILT (3) 1/4" POD VALVES 12/20/05 O.MC.
REBUILT (1) 1 1/2" VALVE FOR ST LOCK. 12/22/05 O.MC.

Completion Date: 05 April 2006

Job Description

Send In 3 Each Solenoid'S For Inspection

Jul 09 2009

Job Number 1550038060336

Well Control

Corrective Maintenance

1.00

Work Log: EMPAC WORK ORDER NO : 8706-001011-000
3 EACH SOLENOID
02/16/2006 11:19:40
SEND IN 3 EACH SOLENOID FOR INSPECTION,, SEND SAME TO DAN REUDELHUBEREMPAC WORK ORDER
NO : 8706-001011-000
SENT IN
02/18/2006 10:09:52
SOLENOIDS SENT IN ON C/M 5121-3369

Completion Date: 06 April 2006

Job Description

Send In High Pressure Piping To Be Repai

Job Number 1550038053475

Well Control

Corrective Maintenance

1.00

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TDR038-028974

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8705-005368-000
HIGH PRESSURE NIPPLE
08/24/2005 10:14:43

SEND IN HIGH PRESSURE PIPING TO BE REPAIRED,, TO STEVE DONOHUE P/N: P55397

ATTN:

STEVE DONOHUE
TRANSCOCEAN SUITE 400
1311 BROADFIELD BLVD.
HOUSTON TX. 77084

EMPAC WORK ORDER NO : 8705-005368-000
SHIPPED
08/26/2005 08:43:29
CM 5121-3111

FLANGE STUB, 4 BOLT FLANGE X 1-1/2" THREADED UNION, STAINLESS STEEL
FOR BOP CONTROL PODS

W/O 5368

SHIP TO
STEVE DONAHUE

EMPAC WORK ORDER NO : 8705-005368-000
LOST
04/06/2006 17:39:01
NIPPLE WAS LOST????/ 4-6-06 M.HAY

Completion Date: 26 April 2006

Job Description	Job Number	Craft	Job Type	Total Hours
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Sm- 3 Each Section Of Grating For Contr

1550038061018

Well Control

Corrective Maintenance

1.00

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TRN-INV-00034286

TDR038-028975

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8706-001503-000
3 EACH SECTION OF GRATING
03/11/2006 11:25:14

GRATING, YELLOW CORVEX FIRE RETARDANT, 1" THICK X 1-1/2" SQUARE MESH, SLIP RESISTANT
MENISCUS SURFACE, 3' 9" WIDE X 6' 0" LONG

QTY NEEDED 3 EACH SM00321087 FOR CAMERON CONTROL PODS UNIT COST: \$324.00

VENDOR: WELL SERVICE
337-364-3025

EMPAC WORK ORDER NO : 8706-001503-000
ITEMS HERE
04/03/2006 00:43:00
GRATING ON DECK. ARRIVED 4/1/06 MAC

Completion Date: 09 May 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Rebuild Spare 1 1/2" Regulator On Shelf	1550038063024	Well Control	Corrective Maintenance	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8706-002808-000 WORK COMPLETE 05/09/2006 22:02:29 WORK COMPLETE. 05/09/06			

Completion Date: 26 June 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Used Filters On Rigid Conduit Ma	1550038063729	Well Control	Corrective Maintenance	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8706-003172-000 REPLACED ALL FILTERS 06/26/2006 12:40:22 REPLACED ALL FILTERS ON RIGID CONDUIT AND HOT LINE 6-9-06 B.STRINGFELLOW			

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TDR038-028976

Completion Date: 19 July 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Cameron Pilot Regulator With A G	1550038060555	Well Control	Corrective Maintenance	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8706-001134-000 PILOT REGULATOR 07/19/2006 14:24:45 BILL STRINGFELLOW NEED TO ORDER NEW GILMORE REGULATOR FOR POD. THIS IS TO BE CHARGED TO 2006 BOP MAINTENANCE BUDGET. THIS IS PER JOHN KEETON. TO BE ORDERED FROM: BUXTON INTEREST INC. 9826 WHITHORN DRIVE HOUSTON, TX. 77095			

Completion Date: 14 September 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Used Filters On Rigid Conduit Ma	1550038066649	Well Control	Corrective Maintenance	3.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8706-005019-000 COMPLETE 09/14/2006 07:52:52 REPLACE OLD FILTERS IN RIGID CONDUIT AND HOT LINE ON LMRP. M.HAY 8-20-06			

Completion Date: 09 November 2006

Job Description	Job Number	Craft	Job Type	Total Hours
SI - Re- Bill To "Bp" Need Cameron Servi	1550038065674	Well Control	Corrective Maintenance	14.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8706-004398-000
SERVICE HAND

07/26/2006 15:56:23

RE- BILL TO "BP" NEED CAMERON SERVICE HAND TO ASSIST IN DISSEMBLE OF BOTH ANNULAR
OPERATORS
AND TROUBLE SHOOT COIL FAULTS AND POD MIS-MATCH ON BOTH PODS. RE-BILL PER JOHN KEETON

Completion Date:

08 December 2006

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod				
Jul 09 2009	1550038063805	Well Control	PM	6.00
Work Log: EMPAC WORK ORDER NO : 8706-003244-000				
REPAIR				
06/08/2006 13:46:53				
BILL STRINGFELLOW				
THE LMRP CONNECTOR REGULATOR WAS FOUND TO BE LEAKING DURING INSPECTION OF THE POD. INSTALLED CAMERON REPAIR KIT # 656002-08-00-99.				

Completion Date:

07 January 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Rebuild Valves On #2 Pod				
Jul 09 2009	1550038067102	Well Control	Corrective Maintenance	12.00
Work Log: EMPAC WORK ORDER NO : 8706-005269-000				
VALVE REPAIR				
09/02/2006 18:00:01				
BILL STRINGFELLOW				
REBUILD 1 1/2" SLIDE VALVE FOR THE ST LOCK AND THE ANNULAR. REBUILD THE 3/4" REGULATOR FOR THE LMRP CONNECTOR. NEED TO ORDER THE FOLLOWING PARTS TO REPAIR ONE OF THE 1 1/2" VALVES				
103200000004876 CAP \$1,077.80				
1032000000004877 SLIDE \$1,439.20				
154000000000061 SPRING \$439.20				
3000000000001534 REPAIR KIT \$928.80				

Completion Date: 16 January 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Rebuild Valves Off Pod #2	1550038071169	Well Control	Corrective Maintenance	4.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8707-000232-000 WORK COMPLETE 01/16/2007 04:03:04 REBUILT 1 1/2" VALVE FOR THE "ST" LOCK FUNCTION THAT WAS PULLED OFF DURING THE LAST RIG MOVE. 01/12/07 O.M.C.			

Completion Date: 04 February 2007

Job Description	Job Number	Craft	Job Type	Total Hours
SI -Cameron Service Hand To Repair Pod C	1550038070383	Well Control	Corrective Maintenance	32.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8706-007391-000 COMPLETE 01/07/2007 07:59:14 CAMERON SERVICE HAND CAME OUT TO RIG AND REPLACE SEM IN # 2 POD WITH THE SEM OUT OF #3 POD 12-30-06EMPAC WORK ORDER NO : 8706-007391-000 CAMERON SERVICE 12/18/2006 16:31:56 1 EACH CAMERON SERVICE HANDS FOR REPAIR OF COIL FAULTS AND POD MIS-MATCH FOR THIS RIG MOVE. EST COST IS \$1800 A DAY FOR THE SERVICE HAND EST 5 DAYS OF SERVICE			

Completion Date: 20 February 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Accumulator Removed From This Pod Needs	1550038071969	Well Control	Corrective Maintenance	2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8707-000741-000
WORK COMPLETE
02/20/2007 03:43:22
PULLED OLD BLADDER OUT AND CLEANED UP.
INSTALLED NEW BLADDER.
02/20/07 O.MC.

Completion Date: 27 February 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Bad Anodes On Pod				
Jul 09 2009	1550038071700	Well Control	Corrective Maintenance	1.00
Work Log: EMPAC WORK ORDER NO : 8707-000549-000 CHARGE TO WO# 1092 02/27/2007 15:38:27 ANODES CANCELLED ON THIS WORK ORDER AND CHARGED TO WORK ORDER # 1092 IN ORDER TO KEEP ALL POD COSTS ON ONE WORK ORDER - DGATESEMPAC WORK ORDER NO : 8707-000549-000 ANODES FOR # 2 POD 01/27/2007 14:14:11 BILL STRINGFELLOW REPLACE BAD ANODES ON POD.				

Completion Date: 11 March 2007

Job Description	Job Number	Craft	Job Type	Total Hours
365 Day-Mux Pod				
Jul 09 2009	1550038068064	Well Control	PM	2.00
Work Log: EMPAC WORK ORDER NO : 8706-005927-000 COMPLETE 03/11/2007 16:40:02 MADE ALL CHECKS				
Rig Move-Mux Pod				
Jul 09 2009	1550038072361	Well Control	PM	6.00
Work Log: EMPAC WORK ORDER NO : 8707-001073-000 COMPLETE 03/11/2007 09:21:23 MADE ALL CHECKS AND TESTED SAME..				

Completion Date: 29 March 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Sm- 3 Each Section Of Grating For Contr Jul 09 2009	1550038071765	Well Control	Corrective Maintenance	3.00
Work Log: EMPAC WORK ORDER NO : 8707-000610-000 RECEIVED 03/04/2007 18:23:43 CM 5121-3856 QUAN: 3 LOCATION: IN BLUE TOI CARGO BOX. GRATING, YELLOW CORVEX FIRE RETARDANT, 1" THICK X 1-1/2" SQUARE MESH, SLIP RESISTANT MENISCUS SURFACE, 3' 9" INCHES WIDE X 6'0" LONG. EMPAC WORK ORDER NO : 8707-000610-000 GRATING FOR CONTROL PODS 02/03/2007 09:24:18 2 EA. GREASE FITTINGS STK: 55256 GRATING, YELLOW CORVEX FIRE RETARDANT, 1" THICK X 1-1/2" SQUARE MESH, SLIP RESISTANT MENISCUS SURFACE, 3' 9" WIDE X 6' 0" LONG QTY NEEDED 3 EACH SM00321087 FOR CAMERON CONTROL PODS UNIT COST: \$324.00 VENDOR: WELL SERVICE 337-364-3025 EMPAC WORK ORDER NO : 8707-000610-000 RECEIVED GRATING 03/18/2007 18:39:20 RECEIVED O.M.C. LOCATED IN THE BOP HOUSE.				

Completion Date: 28 April 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Change Pilot Filters On Both Pods	1550038074489	Well Control	Corrective Maintenance	2.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8707-002232-000
COMPLETE
04/28/2007 16:12:21
CHANGED FILTERS 4-25-07

Completion Date: 28 May 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod				
Jul 09 2009	1550038074799	Well Control	PM	2.00
Work Log: EMPAC WORK ORDER NO : 8707-002454-000				
COMPLETE				
05/28/2007 14:49:13				
MADE ALL CHECKS.,				

Completion Date: 18 August 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Replace Rubber Grommets In Pod Female R				
Jul 09 2009	1550038071399	Well Control	Corrective Maintenance	8.00
Work Log: EMPAC WORK ORDER NO : 8707-000353-000				
RUBBER				
01/19/2007 14:18:27				
BILL STRINGFELLOW				
REPLACE RUBBER GROMMETS IN POD FEMALE RECEPCTACLES.				
NEED TO INPUT NUMBER				
DESC.	P/N	ICN	QTY.	
CAMERON, SPRING COMPRESSION ELASTOMER FOR STACK AND RISER FEMALE RECEPTACLE	113090-01	103200000004878	20	
EMPAC WORK ORDER NO : 8707-000353-000				
COMPLETE				
04/02/2007 13:33:57				
RUBBER GROMMETS ARE IN SS SHOP.. M.HAY				

Completion Date: 22 September 2007

Job Description	Job Number	Craft	Job Type	Total Hours
1825 Day-Mux Pod Jul 09 2009	1550038063392	Well Control	PM	12.00
Work Log: EMPAC WORK ORDER NO : 8706-003017-000 WORK COMPLETE 06/10/2007 13:03:25 ALL THE VALVES HAVE BEEN REBUILT. ALL THE SOLINIDS HAVE BEEN REBUILT. CAMERON WENT THROUGH ALL THE MUX PACKAGE. 2005. STINGER SEALS GET CHANGED EACH TIME POD IS ON DECK. ALL VALVES ARE TESTED EACH TIME POD IS ON DECK. ACCUMULATOR PRECHARGE IS CHECKED AND ADJUSTED EACH TIME POD IS ON DECK. SEALS CHANGED IN ALL PBOF CABLES THAT GET DISCONNECTED. THEN TESTED. SPM POCKETS DO NOT APPLY. ANNODES ARE CHANGED AS REQUIRED. PIE CONNECTOR WIRES ARE NEVER DISCONNECTED UNLESS THE PIE CONNECTOR IS BEING CHANGED.				
Repair Kit For 3/4" Regulator For Lmrp C	1550038068609	Well Control	Corrective Maintenance	12.00

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Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8706-006319-000
ORDER RETAINING RING.
10/26/2006 04:36:48
NEED CARD FOR RETAINING RING. PART NO. 703099 CAMERON. QTY. (1)
10/26/06 O.MC.EMPAC WORK ORDER NO : 8706-006319-000
CARD REQUESTED
11/16/2006 07:44:10
CARD REQUEST NUMBER 17381 EMPAC WORK ORDER NO : 8706-006319-000
INSTALL REPAIR KIT
11/19/2006 04:05:34
INSTALLED NEW REPAIR KIT IN 3/4" REGULATOR REMOVED FROM # 2 POD. 10-22-06

INSTALLED NEW REPAIR KIT IN 1" PREMIUM VALVE FOR THE ACCUMULATOR CHARGE. #2185611-01-99.
THIS VALVE
IS MISSING ONE OF THE POPPET RETAINERS. WILL ORDER ONE TO REPLACE IT. 10/26/06 O.MC.

INSTALLED ANOTHER REPAIR KIT IN (1) MORE 3/4" REGULATOR. ON SHELF FOR SPARE. 11/19/06 O.MC.
EMPAC WORK ORDER NO : 8706-006319-000
ORDER CORRECT RETAINING RING
03/29/2007 05:16:32
REQUESTING A CARD FOR PART NO. A01 2185232-01 RETAINER, PISTON, DRG VALVE, 1" & 3/4"
1.563/1.556 O.D
CAMERON. QUANTITY (1). 03/16/07 O.MC. EMPAC WORK ORDER NO : 8706-006319-000
STOCK CARD REQUEST
06/13/2007 19:48:59
SCR 18941
ASHLEY DEAN

Completion Date: 23 November 2007

Job Description	Job Number	Craft	Job Type	Total Hours
Receptacle & O-Rings , E-Connector, For				
Jul 09 2009	1550038080401	Well Control	Corrective Maintenance	13.00
Work Log: EMPAC WORK ORDER NO : 8707-005929-000				
WORK COMPLETE				
11/21/2007 10:13:52				
CAMERON HAND CHANGED OUT (51) E-CONNECTORS ON THE #2 POD 11/06/07 O.MC.				

Completion Date: 26 November 2007

Job Description	Job Number	Craft	Job Type	Total Hours
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TRN-INV-00034295

TDR038-028984

Rebuild 1 1/2" Valve For Annular Close 1550038081352 Well Control Corrective Maintenance 0.00

Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8707-006601-000
 NEED CARD
 11/26/2007 08:12:55
 QTY. 1
 PART NO. 112562-01 B01
 PILOT CYLINDER , 1 1/2" DBL. PILOTED POD VALVE.
 CAMERON

Completion Date: 03 January 2008

Job Description	Job Number	Craft	Job Type	Total Hours
730 Day-Mux Pod	1550038079801	Well Control	PM	4.00
Jul 09 2009 Work Log: EMPAC WORK ORDER NO : 8707-005526-000 COMPLETE 01/03/2008 16:00:35 MADE ALL CHECKS AND REPLACE ANY LEAKING VALVES.				

Completion Date: 09 March 2008

Job Description	Job Number	Craft	Job Type	Total Hours
SI- Cameron Service Hand To Make Repairs	1550038080818	Well Control	Corrective Maintenance	38.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8707-006247-000
CAMERON SERVICE HAND
11/10/2007 17:07:44
EXPECTED TO NEED: ONE SERVICE HAND FOR REPAIRS TO YELLOW "B" SEM
2 DAYS AT \$1800.00 PER DAY.
PLUS EXPENSES.

CONTACT:
Carter Erwin
Service Manager
Drilling Service
Drilling Systems

Cameron
6650 Bingle Rd
Houston, TX 77092
Tel 713.423.8904
Cel 281.799.7564
Fax 713.423.8991
Carter.Erwin@c-a-m.com

EMPAC WORK ORDER NO : 8707-006247-000
WORK COMPLETE
11/21/2007 09:56:00
FOUND LOOSE WIRE IN THE CCU.

Completion Date: 07 June 2008

Job Description	Job Number	Craft	Job Type	Total Hours
Replacing Outdated Rubber Goods	1550038083715	Materials	Other Maintenance	1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8708-000956-000
RUBBER GOODS.
02/18/2008 18:29:03
RUBBER GOODS ORDERED TO REPLACE ITEM ON SHELF THAT ARE OUT OF DATE:

2 EA. ICN: 112188 TO REPLACE O-RINGS AS PART OF ICN: 417270
1 EA. ICN: 1482327 TO REPLACE O- RING AS PART OF ICN: 427640
1 EA. ICN: 1482327 TO REPLACE O- RING AS PART OF ICN: 427640
1 EA. ICN 1021-1742 TO REPLACE O-RING AS PART OF ICN: 30189
1 EA. ICN: 1032-4453 TO REPLACE O-RING AS PART OF ICN: 427640

JCLEMENTS

Completion Date: 11 July 2008

Job Description	Job Number	Craft	Job Type	Total Hours
365 Day-Mux Pod	1550038084222	Well Control	PM	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8708-001319-000 NOT IN SERVICE 07/11/2008 10:17:29 THIS POD IS OUT OF SERVICE AT THIS TIME. MUX PACKAGE IS AT D&D FOR REBUILDING SOLINOID FLUID ENDS. 07/11/08			
Rig Move-Mux Pod	1550038084450	Well Control	PM	1.00
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8708-001504-000 NOT IN SERVICE 07/11/2008 07:46:10 THIS POD IS STILL OUT OF SERVICE. MUX PACKAGE IS AT D&D HAVEING THE SOLINOID FLUID ENDS REBUILT AND TESTED. 07/11/08 O.M.C.			

Completion Date: 07 January 2009

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod	1550038092354	Well Control	PM	3.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8708-006839-000
COMPLETE

01/07/2009 14:29:44

FUNCTIONED ALL VALVES AND CHECKED FOR LEAKS... ALL OK, 1-1-09 M.HAY

Completion Date: 25 January 2009

Job Description	Job Number	Craft	Job Type	Total Hours
Change Coding From 2008 Project To 2009	1550038093601	Materials	Corrective Maintenance	0.50
Jul 09 2009	Work Log: EMPAC WORK ORDER NO : 8709-000540-000 DATESTART : 01/24/2009 00:00:00.000000 DATECOMPLETE : 01/25/2009 23:59:59.000000 No Work Reported in EMPAC			

Completion Date: 14 February 2009

Job Description	Job Number	Craft	Job Type	Total Hours
Pod #2 - Additional Work To Make Pod Rea	1550038090327	Well Control	Corrective Maintenance	10.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8708-005324-000
INSTALLED ANODES
11/25/2008 13:48:29
INSTALLED NEW ANODES ON POD. 11/25/08 WORK PERFORMED BY GABE GARDNER. O.MC.EMPAC WORK
ORDER NO : 8708-005324-000
ACCUMULATORS PAINTED
11/25/2008 13:52:32
ALL ACCUMULATORS PULLED OFF AND PAINTED. CHANGED ONE THAT HAD A RUPTURED BLADDER.
O.MC. EMPAC WORK ORDER NO : 8708-005324-000
CHANGED ALL STINGER SEALS
11/25/2008 14:03:04
ALL STINGER SEALS CHANGED ON BOTH THE STACK STINGER AND THE LMRP STINGER. WORK
PERFORMED BY GABE GARDNER. O.MC. 10/02/08 EMPAC WORK ORDER NO : 8708-005324-000
INSTALLED KIT
11/25/2008 14:02:05
INSTALLED KIT IN ANNULAR REGULATOR THAT CAME OFF YELLOW POD ON STACK AND INSTALLED ON
SPARE POD. WORK PERFORMED BY JAY ODENWALD. 11/07/08 EMPAC WORK ORDER NO :
8708-005324-000
NEW WORK ORDER FOR SPARE POD
02/14/2009 13:26:35
NEW WORK ORDER #09-874 FOR ANY ADDITIONAL WORK TO BE PERFORMED ON THIS POD. THIS IS
ACTUALLY POD #3. O. MC. 02/14/09

Completion Date: 30 March 2009

Job Description	Job Number	Craft	Job Type	Total Hours
Rig Move-Mux Pod				
Jul 09 2009	1550038094677	Well Control	PM	4.00
Work Log: EMPAC WORK ORDER NO : 8709-001239-000				
COMPLETE				
03/30/2009 15:33:40				
DID FUNCTION TEST ON POD				

Completion Date: 22 May 2009

Job Description	Job Number	Craft	Job Type	Total Hours
1-1/2" Female Npt Connector For Pod Flow				
	1550038093756	Well Control	Corrective Maintenance	1.00

Jul 09 2009

Work Log: EMPAC WORK ORDER NO : 8709-000590-000
NEED CARD MADE
02/02/2009 15:52:27
QTY NEEDED IS 4EACH CONNECTOR, FEMALE NPT 1-1/2" BY 1-1/2" TUBE SOCKET WELD

P/N: 2711408-24

Placed By : MIKE FRY
Valid From : JAN 26 2009
Valid To : FEB 16 2009

DELIVERY TIME WILL BE 3-4 WEEKS FROM APPROVEL OF P.O.

Item Material Number: Extended Qty UM Unit Price Extended Price
Description Weight USD USD

2711408-24 1 EA 570.40 570.40
CONNECTOR, FEMALE NPT 1-1/2" BY
1-1/2" TUBE SOCKET WELD
LIST PRICE: 713.00
DISCOUNT: 20 %

Price Summary:

Total Price: 570.40 USD

Total Quotation Value : 570.40 USD

CAMERON RESERVES THE RIGHT TO REVIEW QUOTED PRICES SHOULD THERE BE AN INCREASE BY MORE THAN 2% AS THE RESULT OF THE STEEL PRICE ADJUSTMENT FORMULA. THE FORMULA REFLECTS CHANGES TO MEPS-WORLD CARBON STEEL AND MEPS-WORLD STAINLESS STEEL PRODUCT PRICES. INDEX NAME HOT ROLLED PLATE, PUBLISHED BY MEPS INTERNATIONAL. UK. URL ADDRESS IS WWW.MEPS.CO.UK. THE FORMULA TO BE USED IN THIS ASSESSMENT IS INCLUDED WITHIN ATTACHMENT (X).

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN

Repair Quote

Sold To: 20002190

TRANSOCEAN OFFSHORE DEEPWATER

DRILLING INC

PO Box 4255

HOUSTON TX 77210-4255

Document Number: 5000/IT51/20507821

Page: 1 of 2

Date Issued: JAN 26 2009

Payment Terms: Net 30 days

Terms and Conditions As Attached/Included

DRILLING SYSTEMS

Thomas Road Orders

20 May 2010

Deepwater Horizon

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TRN-INV-00034301

TDR038-028990

Sep 23 2009

Work Log: SEND SEM REMOVED FROM YELLOW POD LAST RIG MOVE. ON THE START UP OF KODIAK WELL 727 #2

CAMERON DRILLING SYSTEMS

6650 Bingle Road
Houston Texas 77092
Attn: Stan Jarrett

Oct 08 2009

Work Log: Parts Requested from ICS:

Oct 09 2009

Work Log: 20 pie connectors on this Job need to be delivered to Dana Burkett at 1311 Broadfield Blvd.
Attn. Dana Burkett
Houston, Tx 77084

Oct 22 2009

Work Log: Parts Requested from ICS:

Oct 27 2009

Work Log: Parts Requested from ICS:

Nov 20 2009

Work Log: Parts Requested from ICS:

Nov 20 2009

Work Log: Recieved (1) 12 pin male Connector ICN # 10010449 from warehouse and sent to Cameron,
6650 Bingle Rd.
Houston Tx 77092
attn. Stan Jarrett
RGR Dept.
O.Mc. 11/20/09

Nov 20 2009

Work Log: Parts Requested from ICS:

Feb 25 2010

Work Log: THIS SEM WAS REMOVE FROM POD #2 WHICH IS IN THE YELLOW SPOT ON THE STACK. THE SEM IN IT NOW IS FOR #1 POD WHICH IS IN THE TEST STAND. O.MC. 02/24/10

Apr 13 2010

Work Log: SEM IS BACK AND IS INSTALLED IN THE SPARE POD.

Completion Date: 27 September 2009

Job Description	Job Number	Craft	Job Type	Total Hours
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PBOF CABLES AND 1" HOSE FOR PODS

Sep 26 2009 Work Log: Parts Requested from ICS:

1550038100195 Well Control Corrective Maintenance 2.00

Sep 26 2009 Work Log: ISSUED OUT PBOF CABLES... PER JAMES KENT,, THE PBOF CABLES WILL BE HANGING UP IN SS SHOP.. M.HAY

Completion Date: 07 October 2009

Job Description	Job Number	Craft	Job Type	Total Hours
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365 Day-Mux Pod

Oct 07 2009 Work Log: EMPAC WORK ORDER NO : 8709-003536-000

1550038097561 Well Control PM 36.00

UNABLE TO PERFORM AT THIS TIME

07/06/2009 13:16:15

UNABLE TO PERFORM AT THIS TIME DUE TO WELL DRILLING OPERATIONS. O.MC. 07/06/09

Oct 07 2009 Work Log: SEM changed 09/09/09 Batteries in this SEM were changed 11/04/07.

inclometers checked on rig move 09/30/09

PBOF cables all checked and tested 09/04/9

all annodes changed 09/09/09

changed between the dates 09/04/09 and 09/30/09

1" hoses inside pod between manifolds changed

1/4" pod valve for ROV

upper and lower annular regulators

Casing Shear Ram valve

Upper annular Close valve

Wellhead Connector Sec. Unlatch valve

Solenoid #19 upper outer choke

20 May 2010

Deepwater Horizon

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TRN-INV-00034303

TDR038-028992

Completion Date: 03 January 2010

Job Description	Job Number	Craft	Job Type	Total Hours
SPM03-BOP Control Pod-Service	1550038104802	Well Control	PM	1.00
Jan 03 2010	Work Log: Can't perform this pm due to Yellow pod on stack.			

Completion Date: 25 January 2010

Job Description	Job Number	Craft	Job Type	Total Hours
POD VALVE PART	1550038101468	Well Control	Corrective Maintenance	5.00
Oct 21 2009	Work Log: Parts Requested from ICS:			

Oct 30 2009	Work Log: Parts Requested from ICS:			
Oct 30 2009	Work Log: ADDED CYLINDER PILOT,, FOR THE ST-LOCK VALVE ON THIS JOB. M.HAY P/N: 112562-01 B01			
Nov 02 2009	Work Log: Parts Requested from ICS:			

Completion Date: 05 February 2010

Job Description	Job Number	Craft	Job Type	Total Hours
NEED O-RINGS FOR CAMERON SOLENOIDS	1550038106425	Well Control	Corrective Maintenance	6.00
Jan 31 2010	Work Log: Parts Requested from ICS:			

Jan 31 2010	Work Log: REPLACING DEFECTIVE SOLENOIDS ON YELLOW POD.			
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Completion Date: 07 February 2010

Job Description	Job Number	Craft	Job Type	Total Hours
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Rebuilding Pod Valve

1550038100214 Well Control Corrective Maintenance 24.00

Oct 13 2009 Work Log: Parts Requested from ICS:

Oct 13 2009 Work Log: Parts Requested from ICS:

Oct 14 2009 Work Log: Parts Requested from ICS:

Nov 25 2008 Work Log: Parts Requested from ICS:

Completion Date: 17 March 2010

Job Description	Job Number	Craft	Job Type	Total Hours
REPAIR KIT FOR 1/4" ROV POD VALVE	1550038108387	Well Control	Corrective Maintenance	2.00
Mar 11 2010 Work Log: Parts Requested from ICS:				

Completion Date: 19 March 2010

Job Description	Job Number	Craft	Job Type	Total Hours
SPM02-BOP Control Pod-Service	1550038108049	Well Control	PM	1.00
Mar 19 2010 Work Log: All work was done by cameran when sem went in to be repaired. We have the official paperwork in file cabinet.				

Completion Date: 13 April 2010

Job Description	Job Number	Craft	Job Type	Total Hours
SEND IN DEFECTIVE SEM REMOVED FROM YEL	1550038100064	Well Control	Corrective Maintenance	1.00

Sep 23 2009

Work Log: SEND SEM REMOVED FROM YELLOW POD LAST RIG MOVE. ON THE START UP OF KODIAK WELL 727 #2

CAMERON DRILLING SYSTEMS

6650 Bingle Road
Houston Texas 77092
Attn: Stan Jarrett

Oct 08 2009

Work Log: Parts Requested from ICS:

Oct 09 2009

Work Log: 20 pie connectors on this Job need to be delivered to Dana Burkett at 1311 Broadfield Blvd.
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Work Log: Parts Requested from ICS:

Oct 27 2009

Work Log: Parts Requested from ICS:

Nov 20 2009

Work Log: Parts Requested from ICS:

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Houston Tx 77092
attn: Stan Jarrett
RGR Dept.
O.Mc. 11/20/09

Nov 20 2009

Work Log: Parts Requested from ICS:

Feb 25 2010

Work Log: THIS SEM WAS REMOVE FROM POD #2. WHICH IS IN THE YELLOW SPOT ON THE STACK. THE SEM IN IT NOW IS FOR #1 POD WHICH IS IN THE TEST STAND. O.MC. 02/24/10

Apr 13 2010

Work Log: SEM IS BACK AND IS INSTALLED IN THE SPARE POD.

20 May 2010

Deepwater Horizon

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TRN-INV-00034306

TDR038-028995