

Revised Permit to Modify (RPM)

Lease G17561	Area AC	Block 813	Well Name GA013	ST 00	BP 03	Type Development
Application Status Approved		Operator 00689 Shell Offshore Inc.				
Pay.gov Amount:		Agency Tracking ID:		Pay.gov Tracking ID:		
General Information						
API 608054005103		Approval Dt 05-AUG-2013		Approved By Kassim Kassim		
Submitted Dt 05-AUG-2013		Well Status Drilling Active		Water Depth 7819		
Surface Lease G17565		Area AC		Block 857		
Approval Comments						
Due to the caisson riser production systems failure on the Spar, your request to suspend the Plug-back operations for the BP004 until the caisson riser repair is completed is approved. Specifically, an RTTS will be set at 200' BML, test same positive/negative, unlatch riser from THS, recover same with lock down bushing, latch riser back to the wellhead, and displace riser with 9.5 ppg SBM, and then move rig over to one of the caisson riser. This process will allow Shell E&P to move forward with remaining approved general procedure from item No.'s 18-24.						
Correction Narrative						
8.2.13 RPM: Approval granted by Jarvis Outlaw to storm proof the GA-013 Well with downhole plug and set a storm packer according to procedure. Please submit the procedure and schematic as a RPM.						
Permit Primary Type Abandonment Of Well Bore						
Permit Subtype(s) Plugback To Sidetrack/Bypass						
Operation Description						
Procedural Narrative						
The GA‐013 BP03 attempt was unsuccessful due to pack offs and fishing operations of drill pipe wiper rubber in open hole and in casing. The purpose of this permit is in preparation for BP04.						
Subsurface Safety Valve						
Type Installed N/A						
Feet below Mudline 0						
Shut-In Tubing Pressure (psi) 2350						
Rig Information						
Name H&P 205	Id 46810	Type PLATFORM	ABS Date 31-DEC-2016	Coast Guard Date 31-DEC-2016		
Blowout Preventers						
Preventer		Size	Working Pressure	--- Test Pressure ---		
Annular			5000	Low 250	High 3500	
Rams		16.75	5000	250	4500	
Date Commencing Work (mm/dd/yyyy) 18-JUL-2013						
Estimated duration of the operation (days) 7						
Verbal Approval Information						
Official Jarvis Outlaw			Date (mm/dd/yyyy) 02-AUG-2013			

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Application Status Approved		Operator 00689 Shell Offshore Inc.				

Questions

Number	Question	Response	Response Text
1	Is H2S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	NO	
2	Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	NO	
3	Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	N/A	
4	Are you downhole commingling two or more reservoirs?	NO	
5	Will the completed interval be within 500 feet of a lease or unit boundary line? If yes, then comment.	NO	
6	For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	N/A	

ATTACHMENTS

File Type	File Description
pdf	GA-013 Pause
pdf	Outlaw Approval 8.2.13
pdf	Proposed Wellbore Schematic
pdf	Rig/Coil Tubing/Snubbing Unit BOP Schematic
pdf	BOE PPFG Plot GA013 BP03
pdf	BP3 TA PE Certificate
pdf	GA-013 BP03 123s 15 July 2013 Submitted
pdf	GA013 MASP BP03 7-15-2013
pdf	Kassim Approval 20130718
pdf	Paygov GA13 BP04
pdf	Perdido GA 13 BP03 Surveys_15-Jul-13
pdf	Perdido GA-013 BP03 Plug Back Permit 05 August 2013

CONTACTS

Name	hardy boudreaux
Company	Shell Offshore Inc.
Phone Number	504.425.4622
E-mail Address	hardy.boudreaux@shell.com
Contact Description	regulatory specialist blake boyles

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Lease G17561	Area AC	Block 813	Well Name GA013	ST 00	BP 03	Type Development
Application Status Approved		Operator 00689 Shell Offshore Inc.				

CONTACTS

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regulatory technician

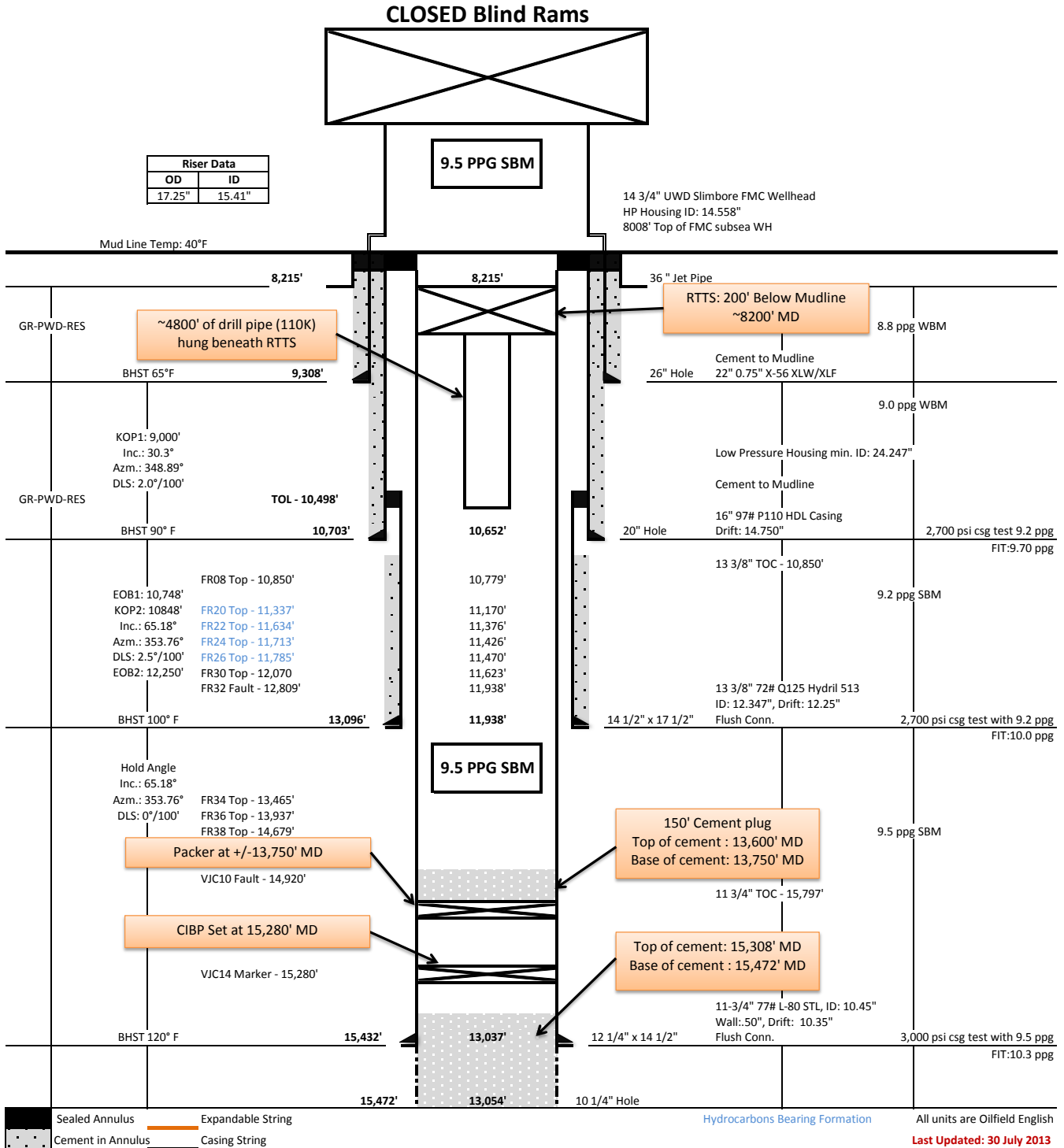
PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et seq. Requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. MMS uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for this form is estimated to average 11/4 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

Alaminos Canyon 813 OCS-G 17561 GA013-ST00-BP03 Proposed Pause

Platform:	Perdido
Field:	Great White
Status:	Proposed
EPA GMG Number:	290103
API No.:	608054005103
Well Name:	OCS-G 17561 GA013-ST00-BP03
Rig:	H&P 205
RKB:	203'

Surf.	X:	1,017,814.00	
	Y:	9,485,458.00	
TD	X:	n/a	
	Y:	n/a	
Water Depth:		7,819	
RKB-Mudline:		8,022	
Network No.:		30170325	
Category		Development	

Logging Program	Directional Temperature	Formations	MD Liner Top	TVD	Hole Size	Casing Cement	Mud	FIT/LOT Csg Test
-----------------	-------------------------	------------	--------------	-----	-----------	---------------	-----	------------------



Perdido Mini Accumulator Capacity Calculations

Comments

T3 6012 16.750-in BOP with LBT configuration
12) 15 gal Acc Btls Eff Vol/btl 13.7 gal (-1.3 gal for bladder)
Ambient Tubular Shear Pressure from Ty Chaffin 2,400 psi
Shearing Ratio from T3-1251035 REV E 14.7
Safe Working Pressure of Annular BOP 5,000 psi
 $5,000/14.7=340$ psi
Pressure to Shear with 5,000 psi Wellbore Pressure
 $2,400+340=2,740$ psi
200 psi Safety Factor
 $2,740+200=2,940$ psi

Used API 16D Conditions for Shear Circuit
Method C Forced Aiabatic with 1.1 Safety Factor

--- Operator Input ---

Precharge Conditions

Empty Volume **13.70 gal**
Pressure **3,200.00 psi**
Temperature **90.00 F**
Precharge Gas **Nitrogen Table**

Surface Extremes

Max Temperature **120.00 F**
Pressure Rating **5,000.00 psi**

Operating Conditions

Initial Pressure **5,000.00 psi**
Min. Pressure **2,940.00 psi**
Minimum Fluid **0.00 gal**
Ambient Temp. **90.00 F**
Starting Temp. **90.00 F**

Dynamic Conditions

Calculation is adiabatic

Required Volume of Fluid

Desired Volume **26.80 gal**
Safety Factor **1.1000**

STP - Standard Temp and Pres

Std. Temperature **60 F**
Std. Pressure **1 atm**

--- Calculated Results ---

... at Operating Conditions

Precharge **3,200.00 psi**
Initial Gas Vol **70.78 %**
Gas Max Density **0.32 g/cc**

... at Surface Extremes

Empty Pressure **3,442.94 psi**
Trapped Pressure **5,407.24 psi**

Discharged - Dynamic

Useful Fluid **2.57 gal**
Remaining Fluid **1.44 gal**
Final Pressure **2,939.99 psi**
Temperature **14.62 F**

Discharged - Isothermal

Useful Fluid **4.00 gal**
Remaining Fluid **0.00 gal**
Final Pressure **3,200.00 psi**

Computed Bank Size

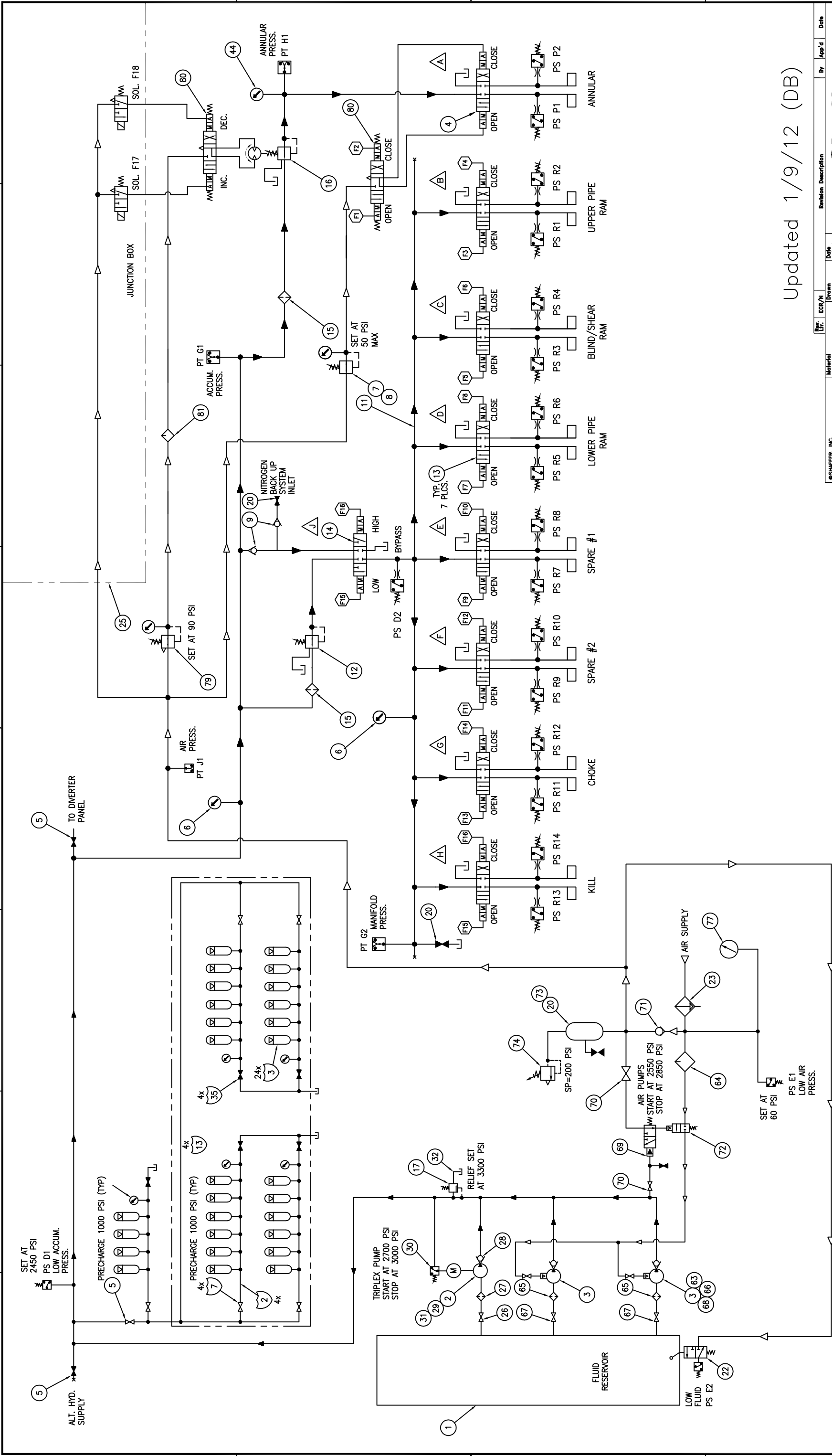
Required Volume **29.48 gal**
Bottles Needed **12**
Resulting Volume **30.80 gal**
Gas Needed **4,204.60 cu-ft**

Notes:

Unless otherwise noted, all pressures are absolute.
Gas Needed is measured at STP as defined in the box to the left.

Interlink Systems, Inc. - Precharge Calculator 1.502/Serial no. 2351

Calculations by: Shell Exploration & Production Company 11/8/2012 5:15:59 PM
\\HOUIC-NA-V506\gabe.gibson\$\Cached\My Documents\Operations\GOM\Perdido\Mini Acc Precharge v3.pcg



Updated 1/9/12 (DB)

FILESS.

NOTES:

1.  INDICATES SIGNAL FROM SOLENOID VALVE

NO MANUAL CHANGES

FILE: 20010510DC - 05/09/02

PROJECT: H&P 205

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SEE B.O.M.
20010510

Heat Treat

N/A

Release No. 65154

Material

Unspecified Tolerances

Dimensions Are In Inches
Do Not Scale Drawing
All Dimensions In Parentheses ()
Are Fractions
All Dimensions In Brackets []
Are Millimeters
Break All Sharp Corners
Remove All Burrs

Unless Otherwise Specified

Dimensions Are In Inches
Do Not Scale Drawing
All Dimensions In Parentheses ()
Are Fractions
All Dimensions In Brackets []
Are Millimeters
Break All Sharp Corners
Remove All Burrs

Rev. 1

ECR/N

Drawn

WVR

04/29/02

Checked

JCP

05/09/02

Engineer

RTD

05/09/02

Release

65154

Scale

N/A

12000 LBS.

Old Part No.

N/A

Finish

N/A

Angles

N/A

Sheet 3 of 3

Rev. —

D-20010510D

ACCUMULATOR FLOW DIAGRAM

T50280-3SX/FA42/GU2KB8S

S/N LR42980/LR39081A

H&P RIG 205

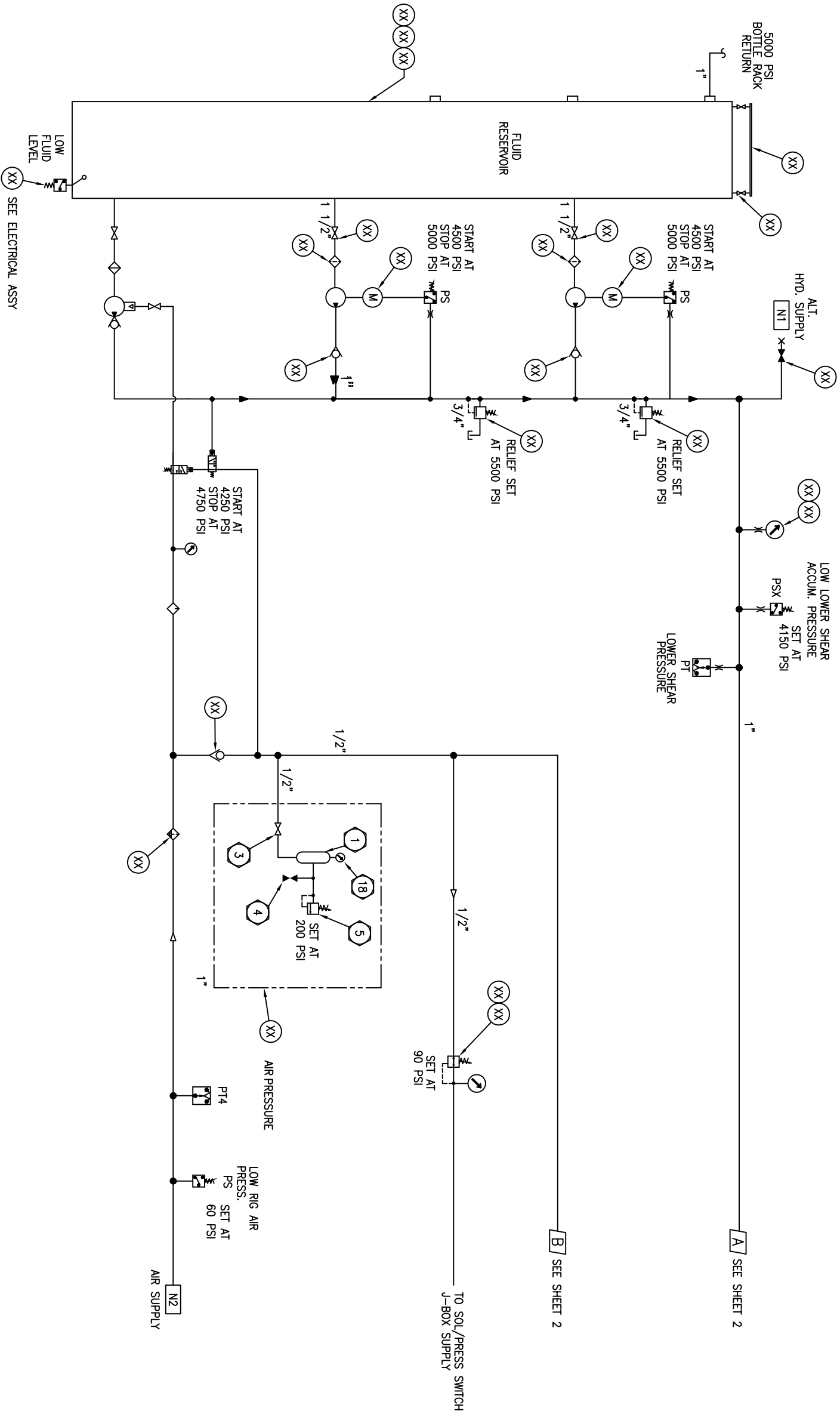
Shafter®

Revision Description

By

App'd

Date



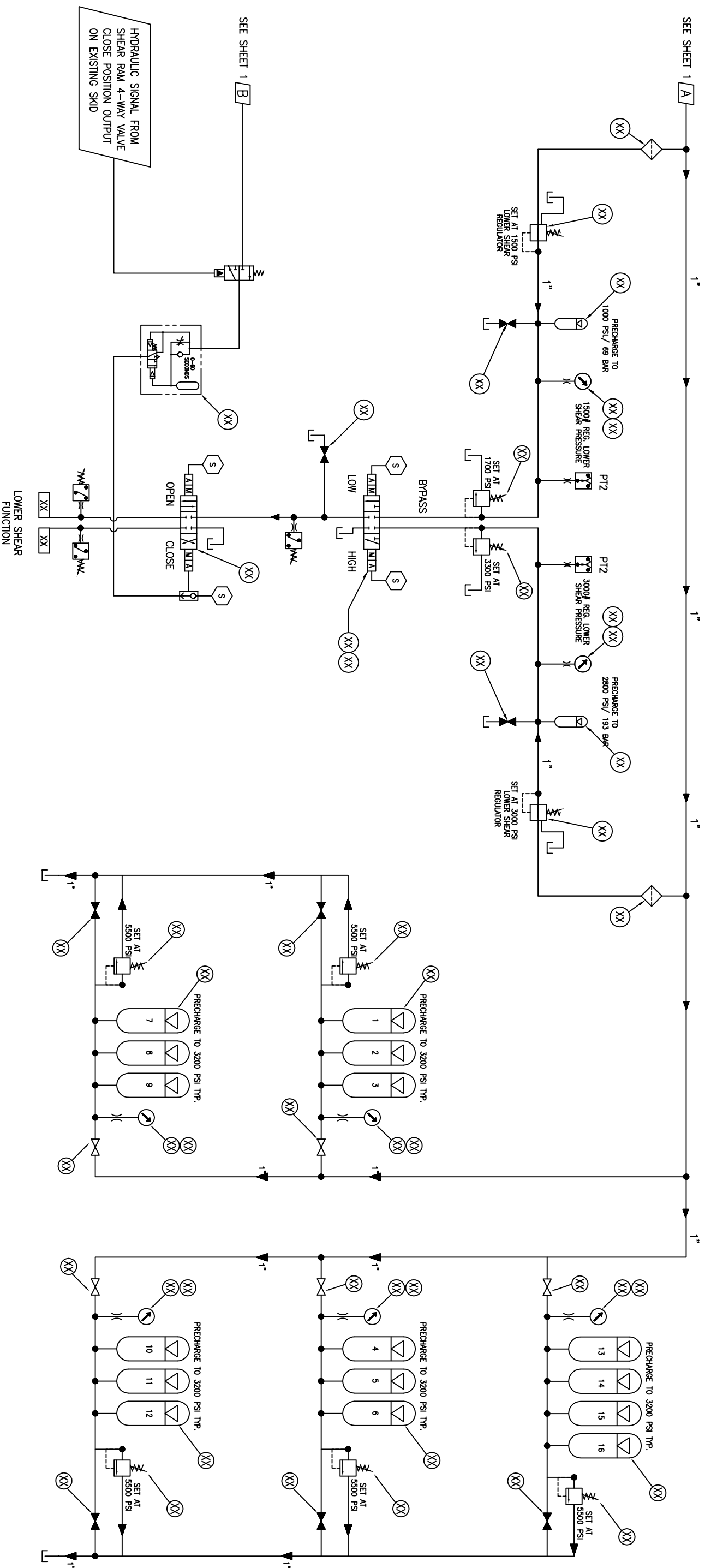
NOTES:

- FOR PRECHARGE REQUIREMENT SEE SIZING CALCULATION.
- INDICATES SIGNAL FROM SOLENOID VALVE.
- FOR B.O.M. SEE XXXXXXXX (HPU ASSY.)
- FOR B.O.M. SEE 20019448 (AIR RCVR ASSY.)

REVISED JANUARY 2013

NO MANUAL CHANGES
FILE: 610A005-05A.9/23/10
PROJECT: H&P 205

Shafter, Inc.				Revision Description			
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Material				Title			
SEE NOTES				D-610A005-05A			
Hard Treat				Sheet 1 of 2			
N/A				Rev. 1			
Unless Otherwise Specified							
Dimensions are in inches							
Do Not Scale Drawing							
All Dimensions in Parentheses ()							
All Dimensions in Brackets []							
Are Millimeters							
Break All Sharp Corners							
Break All Bore							
Material							
SEE NOTES							
Hard Treat							
N/A							
Unspecified Tolerances							
X ± .005							
XX ± .002							
XXX ± .001							
Angles							
N/A							

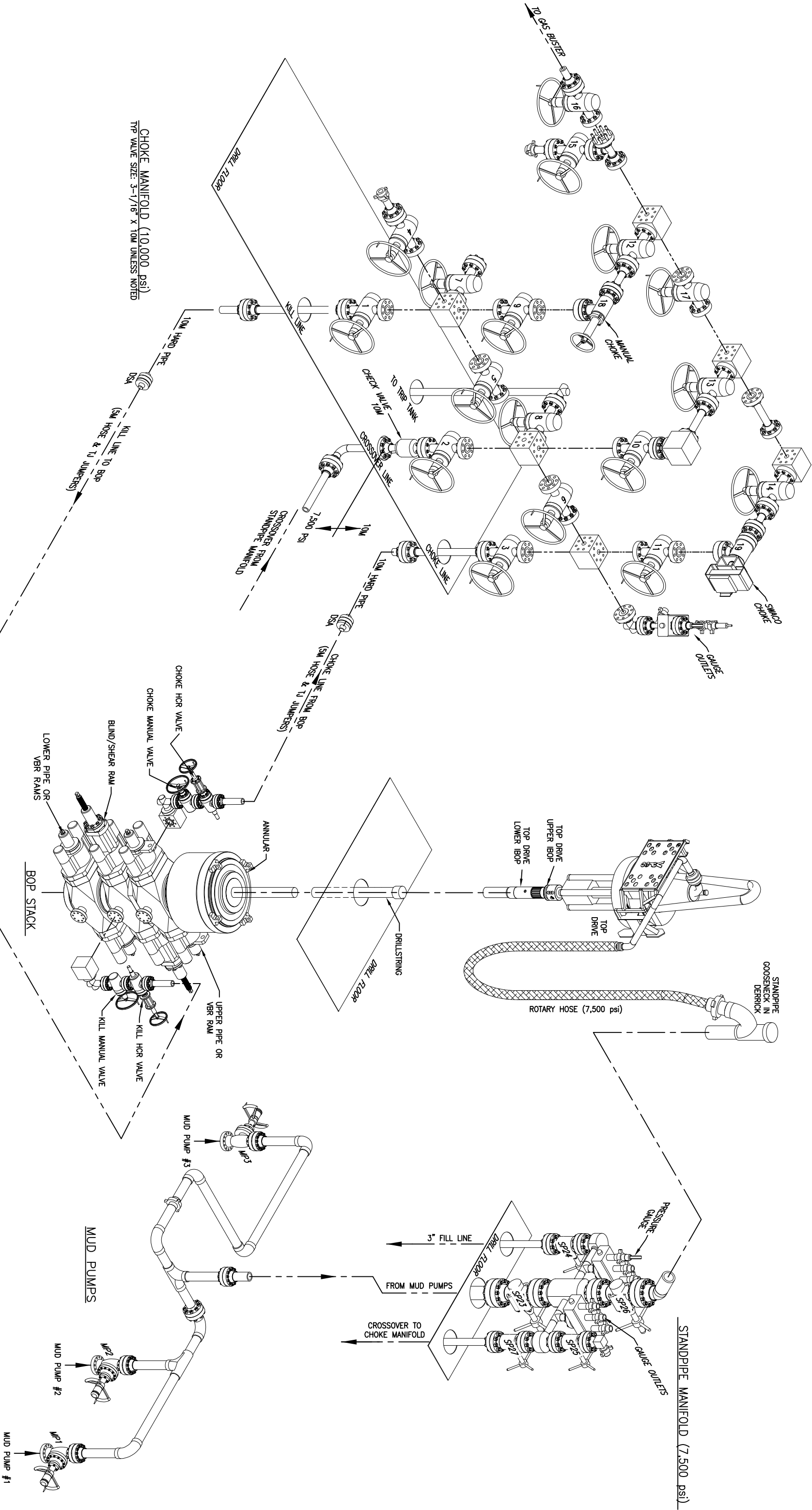


REVISED MARCH 2013

NO MANUAL CHANGES

FILE: 610A005-05B-RE
PROJECT: H&P 205

-ADD FOUR(4) BOTTLE ACCUMULATOR BANK AND RELATED COMPONENTS			
Rev.	ECR N	By	Date
Revision Description			
			
SCHEMATIC, HYDRAULIC/PNEUMATIC LOWER SHEAR HPU & BOTTLE RACKS H&P 205			
D-610A005-05B-REV2			
Rev.			
2			



THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER, WITHOUT THE PRIOR, WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

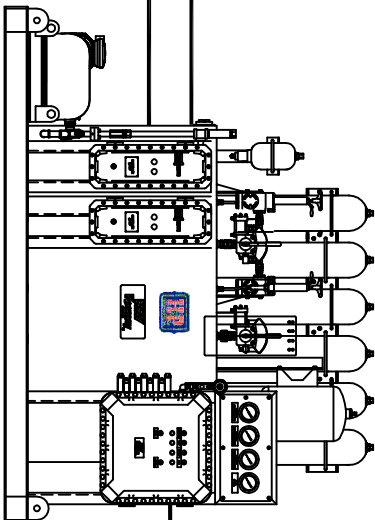
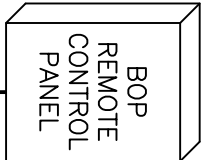
- PROPRIETARY
- > INSIDE BOP/GRAY VALVES ARE SPRING LOADED CHECK VALVES (TESTED ON TEST STUMP).
 - > T1W/SAFETY VALVES ARE FULL OPENING (TESTED ON TEST STUMP OR ABOVE SIDE-ENTRY SUB).
 - > TOP DRIVE IBOP'S ARE FULL OPENING (UPPER IS REMOTELY ACTUATED, LOWER IS MANUALLY ACTUATED).

NOTES:
THIS DIAGRAM FOR VALVE IDENTIFICATION PURPOSES.
REF: BOP ELEVATION DRAWING FOR BOP DETAILS.

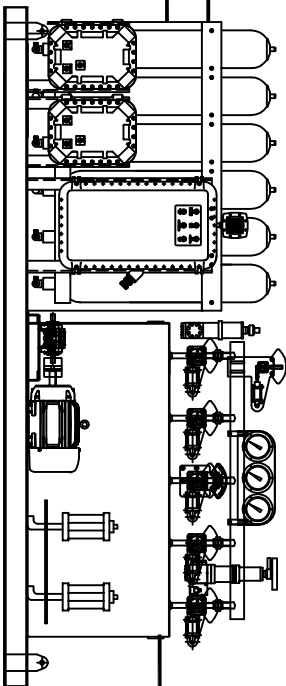
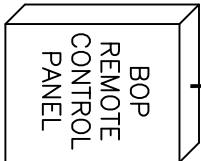
REF: SO-D0998 SHEET 95 FOR ACCUMULATOR AND BOP CONTROLS SCHEMATIC.
DRILL STRING SAFETY VALVES NEEDED FOR EACH DRILLPIPE SIZE/CONNECTION IN USE:

				HELMERICH & PAYNE INTERNATIONAL DRILLING CO.			
				H&P RIG 205			
				TITLE: BOP CHOKE & STANDPIPE MANIFOLD DIAGRAM – RIG 205			
				CUSTOMER: SHELL OFFSHORE INC			
				PROJECT: PERDIDO			
				DRAWN: JAS DATE: 07-27-09 DWG. NO.: SO-D0998			
				SCALE: NTS SHEET: 33 OF – REV: G			

DRILLER'S REMOTE
DRILL FLOOR



SHEAR ACCUMULATOR
(SHELL OWNED)
LOCATED ON PROCESS TANK



ACCUMULATOR
(H&P OWNED)
LOCATED ON ACCUMULATOR TRUSS

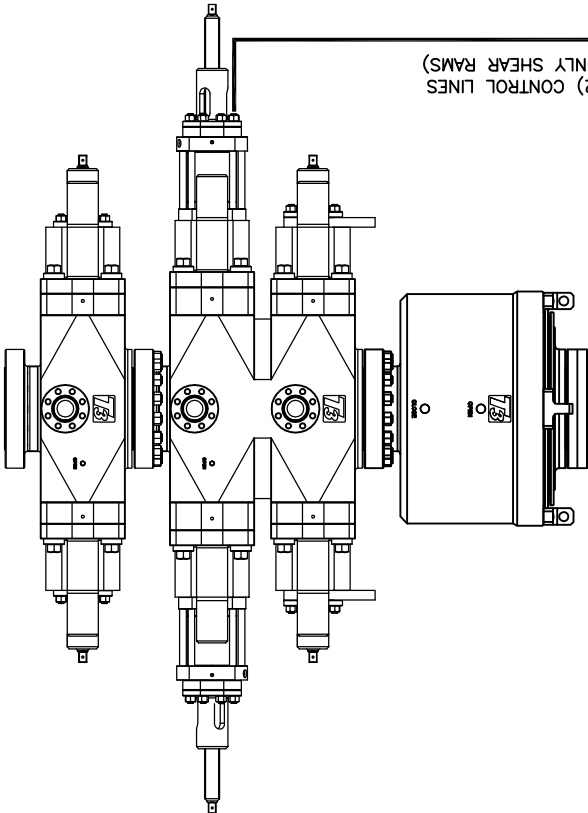
TOOLPUSHERS/RIG MANAGER REMOTE
LIVING QUARTERS

MAKE/MODEL	SHAFFER T50280-3SX
S/N	LR42980/LR39081A
ELECTRIC TRIPLEX PUMP	(1) TD360-50-3, 50 HP, 3,000 PSI
AIR PUMPS	(2) FA-42, 3,000 PSI
RESERVOIR (GAL)	375
BOTTLE PRECHARGE (PSI)	1,000
SYSTEM PRESSURE (PSI)	3,000
# OF BOTTLES	28
NOMINAL GALLONS/BOTTLE	11.0
ELECTRIC PUMP	START = 2,700 PSI
AIR PUMP	STOP = 3,000 PSI
	START = 2,550 PSI
	STOP = 2,850 PSI

MAKE/MODEL	SHAFFER 217.5-164-15SB5X
S/N	LR61723
ELECTRIC TRIPLEX PUMP	(2) T7.5 5X, 7.5 HP, 5,000 PSI
AIR PUMPS	(1) 8SFD-65, 5,000 PSI
RESERVOIR (GAL)	239
BOTTLE PRECHARGE (PSI)	3,200
SYSTEM PRESSURE (PSI)	5,000 (REDUCED TO 3,000)
# OF BOTTLES	16
NOMINAL GALLONS/BOTTLE	15.0
ELECTRIC PUMP	START = 4,500 PSI
AIR PUMP	STOP = 5,000 PSI
	START = 4,250 PSI
	STOP = 4,750 PSI

(10) CONTROL LINES
(ALL EXCEPT SHEAR RAMS)

(2) CONTROL LINES
(ONLY SHEAR RAMS)



BOP (TYPICAL)
REFERENCE RIG BOP, CHOKE AND
STANDPIPE MANIFOLD
DRAWING SO-D0998 SH. 33

BOP CONTROL LINES

- (2) ANNULAR
- (2) DOUBLE - PIPE RAM
- (2) DOUBLE - SHEAR RAM
- (2) SINGLE - PIPE RAM
- (2) CHOKE LINE HCR VALVE
- (2) KILL LINE HCR VALVE

PROPRIETARY

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IZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

STANDARD TOLERANCES

- FABRICATION DIMENSIONS: A-0° TO 34° ±1/16"
B-24° TO 120° ±1/8"
C-OVER 120° ±1/4"
- MACHINED DIMENSIONS: A-ANGULAR ±.001
B-ANGULAR ±.001
C-ANGULAR ±.001
D-ANGULAR ±.001
E-ANGULAR ±.001
F-ANGULAR ±.001
G-ANGULAR ±.001
H-ANGULAR ±.001
I-ANGULAR ±.001
J-ANGULAR ±.001
K-ANGULAR ±.001
L-ANGULAR ±.001
M-ANGULAR ±.001
N-ANGULAR ±.001
O-ANGULAR ±.001
P-ANGULAR ±.001
Q-ANGULAR ±.001
R-ANGULAR ±.001
S-ANGULAR ±.001
T-ANGULAR ±.001
U-ANGULAR ±.001
V-ANGULAR ±.001
W-ANGULAR ±.001
X-ANGULAR ±.001
Y-ANGULAR ±.001
Z-ANGULAR ±.001



HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

ACCUMULATOR & BOP CONTROLS
SCHEMATIC - RIG 205

CUSTOMER: SHELL OFFSHORE

PROJECT: PERDIDO

DRAWN: MWL DATE: 06/10/10

SCALE: NTS SHEET: 95 OF -

SO-D0998

REV: L

GA013 Subsea EVDT (Enhanced Vertical Deepwater Tree)**10,000 psi WP, 250F, H2S Service and Trim EE/FF****5 1/8" x 2 1/16" 10K****18 3/4" Torus IV 15k Bottom x 18 3/4" H4 Top****Valves**

CIT1 - Chemical Injection Tree (2)
 CIT2 - Chemical Injection Tree (1)
 XOV - Crossover Valve
 VXP - VX Gasket Pin Release
 TCT - Tree Connector Test
 FCT - Flowline Connector Test
 FMT - Flow Module Test

Hotstabs

FML/U - Flow Module Lock/Unlock
 FMSU - Flow Module Secondary Unlock
 FMSL - Flow Module Soft Land
 FMT - Flow Module Test

Hotstabs

TL/U - Tree Lock/Unlock
 TCT - Tree Connector Test
 FL/U - Flowline Connector Lock/Unlock
 FCT - Flowline Connector Test
 VXP - VX Gasket Pin Release

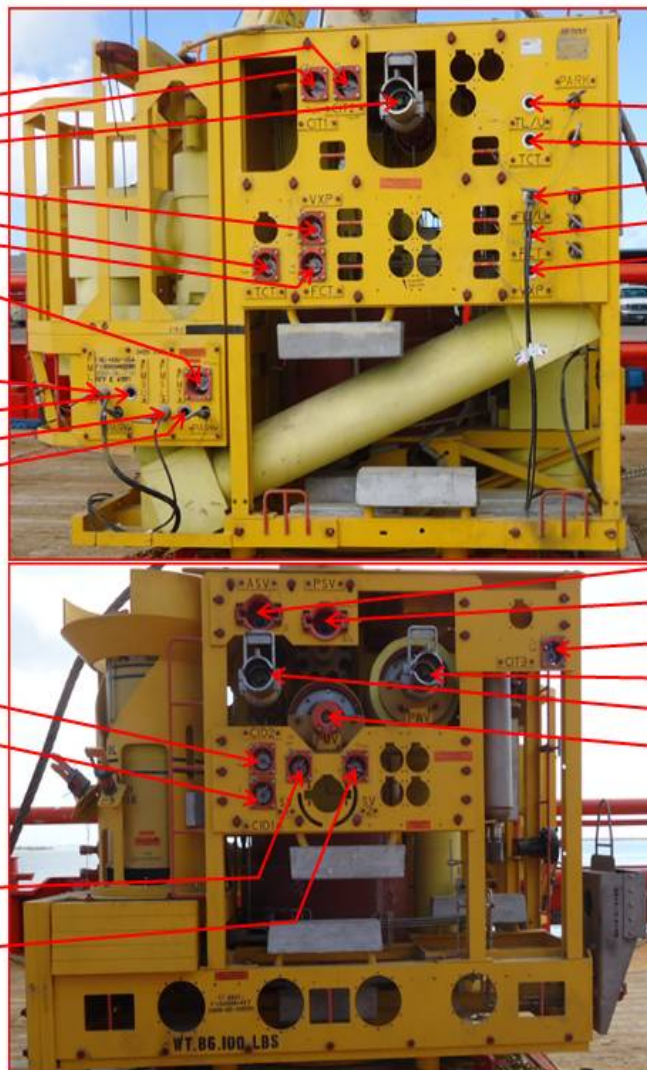
Valves

CID1 - Chemical Injection Downhole (1)
 CID2 - Chemical Injection Downhole (2)

SV1 - Safety Valve Isolation
 Needle Valve (1)
 SV2 - Safety Valve Isolation
 Needle Valve (2)

Valves

ASV - Annulus Swab Valve
 PSV - Production Swab Valve
 CIT3 - Chemical Injection Tree (3)
 PWV - Production Wing Valve
 AMV - Annulus Master Valve
 PMV - Production Master Valve

**Tree VX Ring Gasket and Cavity Test via hot stab tool from ROV – test pressure 10,000 psi****This test confirms the integrity of the following sealing areas:**

- a. EVDT isolation sleeve lower seals to lockdown sleeve (new - untested).
- b. VX gasket (new - untested).
- c. EVDT isolation sleeve upper seals to EVDT body (tested previously).

1. Test VX cavity by pressurizing line A to 10000 psi and hold for 15 minutes, while videotaping gauge.

Tree Production Gallery Test via hot stab too from ROV – test pressure 10,000 psi

This test confirms the integrity of the following sealing areas:

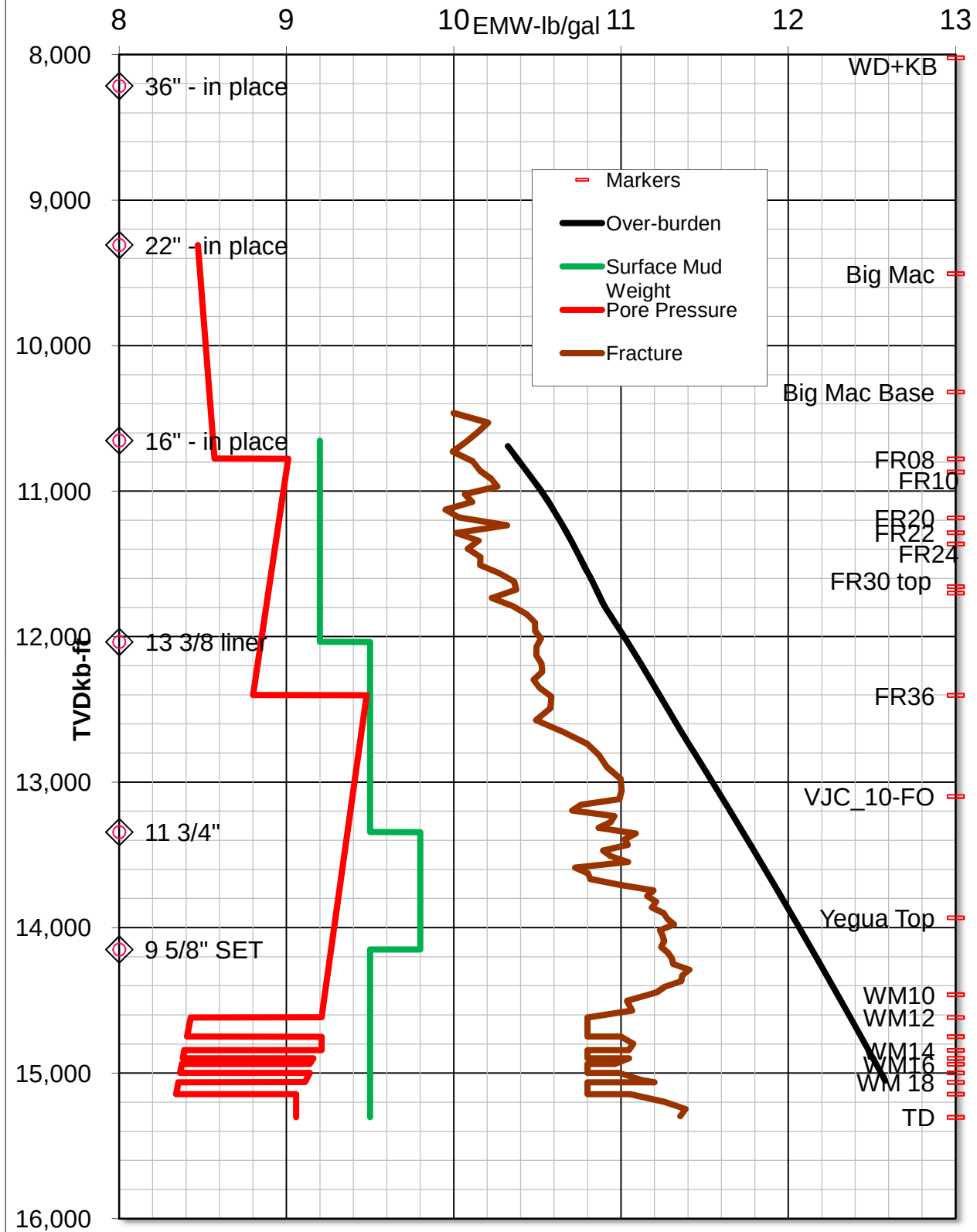
- a. MC gasket ID (new - untested).
 - b. EVDT isolation sleeve lower seals to THS from below (new - untested).
 - c. EVDT Prod. MTM back-up seal to TH from above (new – untested).
 - d. EVDT control line couplers from outside to TH (new – untested).
 - e. TH isolation seal from above (tested previously during completion).
1. Test Tree Gallery by pressurizing line B to 10,000 psi and hold for 15 minutes, while videotaping gauge.

Tree Cap Test via hot stab too from ROV – test pressure 10,000 psi

1. Apply 10,000 psi line A of the hot stab, while videotaping gauge.

Shell

OCS-G 17561 GA013 ST00BP01



APM - Permanently Plugging A Zone
PE Certification

OCS-G 17561 GA013ST00BP03
API: 608054005103

I hereby certify that in the well abandonment design and procedures as proposed, that there will be at least two independent tested barriers, including one mechanical barrier, across each flow path during abandonment activities; and the plug meets the requirements in the table in CFR 250.1715.

Signed:

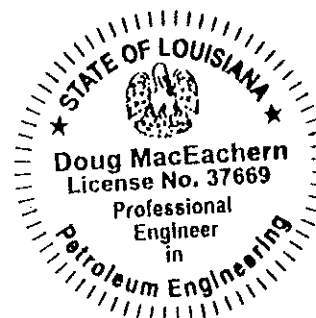
Doug MacEachern

Date:

7/19/13

Doug MacEachern, P.E.
La #37669

Shell International Exploration and Production
PO Box 61933
New Orleans, LA 70161
504-425-7424



Supplemental APD Information Sheet - Updated 07/22/09

1. OPERATOR NAME Shell E&P Co				5. WELL NAME (Proposed) OCS-G 17561 GA013ST00BP03				6. TYPE OF WELL ☐ EXPLORATORY ☒ DEVELOPMENT				11. WATER DEPTH 7819		12. ELEVATION AT KB 203					
2. API WELL NO. (Proposed) (12 Digits) 608054005103				3. BOTTOM LEASE NO. (Proposed) AC 813, OCS-G 17561				7. SIDETRACK NO. (Proposed) 00				8. BYPASS NO. (Proposed) 3				13. H ₂ S DESIGNATION KNOWN ☐ UNKNOWN ☒ ABSENT			
4. TOTAL DEPTH (Proposed) MD 15,472 TVD 13,054				9. RIG NAME H&P 205				10. RIG TYPE Platform				14. H ₂ S ACTIVATION PLAN DEPTH FT (TVD) N/A							

15. ENGINEERING DATA																							
Hole Size (IN)	Casing (Indicate if Liner)	Casing Size (IN)	Weight (#/Feet)	Burst Rating (psi)	Type of Connection	MASP (psi)	Safety Factors			Top of Liner MD	Casing Depth (Feet) MD	Casing Shoe (ppg)			Well-head Rating (psi)	BOP Size (In)	Rated BOP Working Pressure (psi)	Test Pressures				Cement (Feet3)	Drilling Fluid Type (Oil Base, Water Base, Synthetic)
							B	C	T			PP	MW	FG				Annular/ Diverter (psi)	Annular/ Diverter (psi)	Casing Test (psi)	Casing Shoe (ppg)		
36	Drive/Structural	36	554, 380								8215												
			X56, GrB								8215												
26	Conductor	22	170	3340	XLF	NA	NA	NA	NA		9308	NA	NA	NA	NA	NA	NA	NA	NA	NA	3113	Sw w/ Gel Sweeps	
			X-56	1770							9308												
20	Surface	16	97	6920	HDL	1990	5.2	2.2	3.1		16783	8.6	9.0	9.7	10000	16-3/4"	5000	3500	2700	9.7	3463	Water Base	
			P-110	2340							10652						5000	4500	9.2				
17 1/2	Protective	13.375	72	8410	Hydril 513	2060	6.3	4.3	4.4	10498	13096	8.8	9.2	10.2	10000	16-3/4"	5000	3500	270	10.2	1750	Synthetic	
			Q-125	2880							11938						5000	4500	9.2				
14 1/2	Production	11.75	77.6	7690	STL	2340	2.2	1.1	1.7	N/A	15472	9.4	9.5	10.5	10000	16-3/4"	5000	3500	3000**	10.5	560	Synthetic	
			L-80	6190							13054						5000	4500	9.5				

16. CONTACT NAME Samuel Cappel				17. CONTACT PHONE NO. 504.425.4617				18. CONTACT E-MAIL ADDRESS haytham.al-bustami@shell.com , samuel.cappel@shell.com			
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19. Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight ½ ppg or more? ☒ YES ☐ NO

20. Remarks:
I) All MASP calculations are BSEE MASP at surface.
II) 11-3/4" pressure tests are based on MASP + 500 psi with mud weight adjustment

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et seq. requires us to inform you that we collect this information to obtain well status, well and casing test, and well casing configuration data. MMS uses this information to have accurate data and information on all wells under its jurisdiction and to ensure compliance with approved plans. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for this form is estimated to average 1½ hour per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

The Perdido Spar
Alaminos Canyon 813
OCS-G 17561 GA013ST00BP03 Plug Back
Supplemental Information for GA-013 Pause for Caisson 'A' Repair
H&P 205

While working on the plug back of GA-013 BP03 the 'A' Caisson production system failed. This failure results in a loss of between 15 k – 20k bopd. Due to this loss of production it is requested that operations on the GA-013 plug back be suspended to repair the 'A' Caisson.

As per the conversation, between Jarvis Outlaw (BSEE) and Samuel Cappel (Shell) / Jeff Meece (Shell) / Clay Weldy (Shell) on 01 August 2013 at 14:00 hrs, work on GA-013 will be suspended after step 17 on the approved permit.

During the pause to work on 'A' Caisson, GA-013 will have the following barriers: mud weight to surface exceeding all penetrated zones, 2 cement plugs, 2 cast iron bridge plugs, an RTTS packer set 200' below the mudline, as well as closed (and locked) blind rams in the surface BOP stack. The attached schematic is representative of this design.

The expected duration of the pause is 30 days. During this time neither the casing nor the BOP stack will be tested.

The BOP stack and associated equipment will not be altered during the pause.

Appropriate documentation will be provided for the rig move prior to moving to the 'A' Caisson.

Maximum Anticipated Surface Pressure

Perdido GA-013 BP03 PB

Haytham Bustami

15-Jul-13

DATA						MASP			BSEE		
<u>Deepest Exposed Csg/Lnr Size</u>	<u>Shoe TVD</u>	<u>Interval TVD</u>	<u>TD PP</u>	<u>TD MWt</u>	<u>FG @ Shoe</u>	<u>Shell</u>	<u>BSEE Frac</u>	<u>BSEE BHP</u>	Gas Fraction	Gas Gradient (Frac)	Gas Gradient (BHP)
16"	10,652	11,938	8.6	9.2	9.7	1,780	3,760	1,990	0.60	0.15	0.10
13-3/8"	11,938	13,319	8.8	9.5	10.2	2,028	4,530	2,060	0.56	0.15	0.10
11-3/4"	13,037	13,054	9.4	9.7	10.5	2,112	5,150	2,370	0.56	0.15	0.10

Durham, Tamarris R SEPCO-UAS/R/SUB

From: Kassim, Kassim [kassim.kassim@bsee.gov]
Sent: Thursday, July 18, 2013 3:44 PM
To: Al-Bustami, Haytham S SEPCO-PTW/D/W
Cc: Durham, Tamarris R SEPCO-UAS/R/SUB; Albert, Tracy SEPCO-UAS/R/SUB; Jarvis.Outlaw@bsee.gov; david.stanley@bsee.gov; Peter Botros; Cemal Ozoral; Tamara Sopoyeva; Stephanie Poscablo; Phillip Couvillion
Subject: Re: Perdido GA013 Bypass03

Follow Up Flag: Follow up
Flag Status: Flagged

Haytham,

This is to confirm our discussion this afternoon, and to advise you that we have no objection to set a cement plug inside the 11-3/4" casing extended at least to 15310' MD and to set a CIBP above same.

An RPM with a copy of this email attached must be submitted within 72 hours from this verbal approval. Another RPM must also be submitted to set a storm packer below the mud-line should management review goes beyond ten days from today.

WAR's must be continued as usual with a note explaining why no activities for that week. Thanks.

Kassim Y. Kassim

Completion/Workover Engineer
Bureau Of Safety and Environment Enforcement (BSEE)
Lake Jackson District
kassim.kassim@bsee.gov
Office Tel. 979-238-8127

On Thu, Jul 18, 2013 at 2:52 PM, <Haytham.Al-Bustami@shell.com> wrote:

Kassim,

This email is to confirm the conclusion of the conference call we had on July the 18th 2013. We are approved to move ahead with the initial plugging back of Perdido GA013 BP03. This will include a cement plug inside the 11-3/4" casing to a top of at least 15310 ft MD, after which a bridge plug will be set above it.

While we will be discussing the next forward plan for GA013 in general and if it is determined that it will take more than 10 days, then a storm packer will be set just below the mudline.

Your response indicating your agreement to this email will allow the rig to move forward with operations. Thank you for your time and patience.

Regards.

Haytham Bustami

Staff Drilling Engineer



Shell Exploration & Production Company

One Shell Square - Office:2798

701 Poydras Street

New Orleans, LA, 70139

Office: +1 504 425 4944

Cell: +1 225 270 7051

Home: +1 985 327 5251

Fax: +1 504 728 0653

Email: haytham.al-bustami@shell.com

albustami@usa.net

From: Kassim, Kassim [mailto:kassim.kassim@bsee.gov]

Sent: Thursday, July 18, 2013 1:24 PM

To: Al-Bustami, Haytham S SEPSCO-PTW/D/W

Cc: Jarvis Outlaw; David Stanley
Subject: Re: Perdido GA013 Bypass03

Haytham,

We will be available to discuss the proposed plug back around 1400 hours. Please advise if that is acceptable.
Thanks.

Kassim Y. Kassim

Completion/Workover Engineer
Bureau Of Safety and Environment Enforcement (BSEE)
Lake Jackson District
kassim.kassim@bsee.gov
Office Tel. 979-238-8127

On Thu, Jul 18, 2013 at 12:55 PM, <Haytham.Al-Bustami@shell.com> wrote:

Kassim,

See attached schematic of GA013. I believe we have reached a decision that BP03 needs to be plugged. Can we talk and discuss this before we submit the permit?

Regards.

Haytham Bustami

Staff Drilling Engineer



Shell Exploration & Production Company

One Shell Square - Office:2798

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New Orleans, LA, 70139

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Cell: +1 225 270 7051

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Fax: +1 504 728 0653

Email: haytham.al-bustami@shell.com

albustami@usa.net

Durham, Tamarris R SEPCO-UAS/R/SUB

From: Outlaw, Jarvis [jarvis.outlaw@bsee.gov]
Sent: Friday, August 02, 2013 2:59 PM
To: Cappel, Samuel J SEPCO-PTW/D/W
Cc: Stephen Martinez; Peter Botros; Kassim Kassim; Cemal Ozoral; David Stanley; Meece, Jeff D SEPCO-PTW/D/TL; Al-Bustami, Haytham S SEPCO-PTW/D/W; Durham, Tamarris R SEPCO-UAS/R/SUB; Peppers, Charles SEPCO-PTW/D/TL; Chaffin, Ty SEPCO-PTW/D/TL; Weldy, Clay SEPCO-PTW/D/C; Gerber, Daniel R SEPCO-PTW/D/W; Dodd, Justin R SEPCO-PTW/D/TL
Subject: Re: Shell Perdido - GA-013 Pause for Caisson 'A' Repair
Follow Up Flag: Follow up
Flag Status: Flagged

Approval granted to storm proof the GA-013 Well with downhole plug and set a storm packer according to procedure. Please submit the procedure and schematic as a RPM.

Jarvis Outlaw
Well Ops Section Chief
DOI-BSEE GOMR
Lake Jackson District
Clute, TX
(979) 238-8139
jarvis.outlaw@bsee.gov

On Thu, Aug 1, 2013 at 3:55 PM, <Samuel.Cappel@shell.com> wrote:
Jarvis,

Please find the enclosed documents: description of plan forward with pause, schematic of wellbore during pause, and the permit referenced in the pause document.

Please let me know if you need any further information.

Thank you for your time today.

Regards,
Samuel J. Cappel
Drilling Engineer - Perdido
Shell Exploration & Production Company
One Shell Square 2718
+1 504.425.4617
mobile: +1 225.266.9760
email: samuel.cappel@shell.com

Online Payment**Step 3: Confirm Payment****1 | 2 | 3****Thank you.****Your transaction has been successfully completed.****Pay.gov Tracking Information****Application Name:** BSEE eWell**Pay.gov Tracking ID:** 25BK8PSF**Agency Tracking ID:** EWL-APM-155533**Transaction Date and Time:** 07/18/2013 20:06 EDT**Payment Summary**

Address Information	Account Information	Payment Information
Account Holder Theresa K Di Name: Carlo Billing Address: PO Box 61933 Billing Address 2: Shell OSS 3466 City: New Orleans State / Province: LA Zip / Postal Code: 70161 Country: USA	Card Type: Visa Card Number: *****5821	Payment Amount: \$116.00 Transaction Date 07/18/2013 20:06 and Time: EDT

DIRECTIONAL SURVEY REPORT
SHELL OFFSHORE INC.
OCS-G 17561 GA013 ST00BP03
ALAMINOS CANYON BLOCK 813
Texas
USA
LA-XX-0900429011

<i>Measured Depth (feet)</i>	<i>Inclination (degrees)</i>	<i>Direction (degrees)</i>	<i>Vertical Depth (feet)</i>	<i>Latitude (feet)</i>	<i>Departure (feet)</i>	<i>Vertical Section (feet)</i>	<i>Dogleg (deg/100ft)</i>
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	TIE-IN
8022.00	0.00	360.00	8022.00	0.00 N	0.00 E	0.00	0.00
8283.00	0.48	174.50	8283.00	1.09 S	0.10 E	-1.09	0.18
8377.00	0.40	169.21	8376.99	1.80 S	0.20 E	-1.81	0.10
8472.00	0.47	164.81	8471.99	2.50 S	0.37 E	-2.53	0.08
8566.00	0.57	154.50	8565.99	3.30 S	0.67 E	-3.36	0.15
8661.00	0.25	303.37	8660.99	3.61 S	0.70 E	-3.68	0.84
8754.00	0.25	343.50	8753.99	3.30 S	0.47 E	-3.34	0.18
8849.00	0.20	9.89	8848.98	2.94 S	0.44 E	-2.98	0.12
8943.00	0.31	336.70	8942.98	2.55 S	0.37 E	-2.57	0.19
9037.00	0.45	11.12	9036.98	1.95 S	0.34 E	-1.98	0.28
9131.00	0.14	46.05	9130.98	1.51 S	0.50 E	-1.57	0.37
9225.00	1.30	328.85	9224.97	0.52 S	0.03 E	-0.52	1.36
9277.00	1.36	321.31	9276.96	0.47 N	0.66 W	0.56	0.36
9339.00	1.49	305.69	9338.94	1.51 N	1.78 W	1.76	0.66
9397.00	1.14	336.76	9396.92	2.48 N	2.62 W	2.85	1.35
9491.00	2.10	306.10	9490.89	4.36 N	4.38 W	4.97	1.34
9585.00	2.05	355.74	9584.83	7.05 N	5.90 W	7.86	1.85
9679.00	3.91	333.87	9678.71	11.60 N	7.43 W	12.59	2.28
9774.00	6.07	329.78	9773.34	18.85 N	11.39 W	20.35	2.30
9868.00	7.66	338.84	9866.67	28.99 N	16.15 W	31.09	2.04
9962.00	10.26	352.14	9959.52	43.13 N	19.56 W	45.58	3.52
10056.00	11.01	350.15	10051.91	60.27 N	22.24 W	62.93	0.89
10150.00	13.32	353.27	10143.79	79.87 N	25.04 W	82.73	2.55
10244.00	16.51	356.77	10234.61	103.96 N	27.07 W	106.85	3.52
10339.00	19.99	354.19	10324.82	133.60 N	29.47 W	136.52	3.76
10433.00	22.62	352.33	10412.39	167.51 N	33.51 W	170.65	2.89
10528.00	26.84	349.70	10498.66	206.74 N	39.79 W	210.37	4.59
10622.00	28.97	348.91	10581.73	249.96 N	47.96 W	254.33	2.30
10690.00	30.30	348.89	10640.83	282.95 N	54.43 W	287.92	1.96
10768.00	29.82	349.31	10708.34	321.32 N	61.82 W	326.96	0.67
10799.00	30.02	349.27	10735.21	336.51 N	64.70 W	342.42	0.67
10894.00	31.66	350.17	10816.77	384.43 N	73.38 W	391.10	1.79
10988.00	33.66	350.04	10895.91	434.40 N	82.10 W	441.81	2.13
11083.00	36.45	349.18	10973.66	488.06 N	91.96 W	496.34	2.98
11177.00	38.40	350.53	11048.31	544.29 N	102.00 W	553.45	2.25
11272.00	40.68	351.32	11121.57	604.02 N	111.53 W	613.92	2.45
11366.00	43.20	351.09	11191.48	666.10 N	121.14 W	676.74	2.69
11461.00	45.53	350.61	11259.39	731.67 N	131.71 W	743.16	2.47
11555.00	47.62	351.42	11324.00	799.10 N	142.37 W	811.43	2.31
11650.00	50.19	352.26	11386.44	869.97 N	152.52 W	883.01	2.79
11744.00	52.37	352.78	11445.24	942.68 N	162.06 W	956.33	2.35
11839.00	55.12	353.05	11501.41	1018.69 N	171.50 W	1032.90	2.91
11934.00	57.83	353.07	11553.87	1097.31 N	181.06 W	1112.06	2.85
12028.00	60.17	353.34	11602.28	1177.31 N	190.59 W	1192.58	2.50
12122.00	62.56	353.76	11647.33	1259.28 N	199.85 W	1275.02	2.57
12216.00	64.33	353.99	11689.35	1342.88 N	208.83 W	1359.02	1.90
12311.00	65.31	354.26	11729.77	1428.40 N	217.62 W	1444.89	1.06
12406.00	64.89	354.10	11769.77	1514.13 N	226.36 W	1530.95	0.47
12500.00	65.38	354.09	11809.29	1598.96 N	235.14 W	1616.14	0.53
12595.00	65.57	353.75	11848.72	1684.90 N	244.29 W	1702.48	0.37
12689.00	65.41	353.71	11887.72	1769.92 N	253.63 W	1787.93	0.17
12783.00	65.30	353.56	11926.92	1854.83 N	263.11 W	1873.30	0.19
12878.00	65.10	353.26	11966.76	1940.50 N	273.01 W	1959.49	0.35
12972.00	65.16	353.89	12006.30	2025.25 N	282.56 W	2044.70	0.62
13066.00	65.44	354.29	12045.58	2110.19 N	291.35 W	2130.00	0.50

13159.00	65.16	354.46	12084.44	2194.28 N	299.63 W	2214.38	0.35
13179.00	64.57	354.17	12092.94	2212.29 N	301.42 W	2232.46	3.18
13273.00	64.72	354.62	12133.18	2296.84 N	309.71 W	2317.28	0.46
13367.00	65.39	354.77	12172.83	2381.70 N	317.59 W	2402.37	0.73
13462.00	65.53	354.93	12212.28	2467.77 N	325.35 W	2488.63	0.21
13556.00	65.55	354.94	12251.21	2553.00 N	332.90 W	2574.02	0.02
13650.00	64.96	354.46	12290.55	2638.00 N	340.78 W	2659.24	0.78
13745.00	64.66	353.69	12330.98	2723.51 N	349.66 W	2745.11	0.80
13840.00	64.93	353.22	12371.43	2808.91 N	359.45 W	2831.01	0.53
13934.00	65.90	353.01	12410.54	2893.77 N	369.70 W	2916.45	1.04
14028.00	65.80	353.00	12449.00	2978.90 N	380.14 W	3002.18	0.11
14122.00	65.27	352.72	12487.94	3063.80 N	390.77 W	3087.71	0.63
14217.00	65.39	353.09	12527.59	3149.47 N	401.42 W	3174.00	0.37
14311.00	65.58	352.96	12566.60	3234.36 N	411.81 W	3259.49	0.24
14406.00	65.54	353.36	12605.91	3320.23 N	422.12 W	3345.93	0.39
14500.00	65.58	353.47	12644.80	3405.24 N	431.93 W	3431.45	0.12
14595.00	64.85	353.80	12684.62	3490.96 N	441.49 W	3517.63	0.83
14689.00	65.07	354.07	12724.40	3575.65 N	450.50 W	3602.72	0.35
14784.00	65.26	354.03	12764.29	3661.40 N	459.44 W	3688.84	0.20
14878.00	65.61	353.85	12803.37	3746.42 N	468.47 W	3774.24	0.41
14973.00	64.90	353.89	12843.13	3832.20 N	477.68 W	3860.44	0.75
15067.00	64.93	354.24	12882.99	3916.88 N	486.49 W	3945.47	0.33
15162.00	65.48	354.05	12922.83	4002.67 N	495.29 W	4031.61	0.61
15256.00	64.98	354.64	12962.22	4087.60 N	503.69 W	4116.84	0.78
15351.00	64.41	354.65	13002.82	4173.11 N	511.70 W	4202.58	0.60
15445.00	64.79	354.41	13043.14	4257.64 N	519.80 W	4287.36	0.46

CALCULATION BASED ON MINIMUM CURVATURE METHOD

**SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT**

**VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A DIRECTION OF 351.34 DEGREES (GRID)
A TOTAL CORRECTION OF 3.75 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED**

**HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 15445.00 FEET
IS 4289.25 FEET ALONG 353.04 DEGREES (GRID)**

The Perdido Spar
Alaminos Canyon 813
OCS-G 17561 GA013ST00BP03 Plug Back
H&P 205

Introduction:

The GA-013 BP03, exiting the 11-3/4" casing via a whipstock, attempt was unsuccessful due to pack offs. The purpose of this permit is to gain approval to recover the 11-3/4", 450' into open hole, casing below the 13-3/8" casing in preparation for BP04 via open hole kick-off.

Location Data:

Surface Location:	X = 1,017,814	Y = 9,485,458
	Latitude: 26° 8' 9.99 N	Longitude: 94° 54' 37.89 W

Casing / Hole Size:

• 36" Jet Pipe:	8215' MD/TVD
• 22" Casing (26" Hole):	9308' MD/TVD
• 16" Casing (20" Hole):	10703' MD / 10652' TVD
• 13-3/8" Casing (17-1/2" x 14-1/2" Hole):	13096' MD / 11938' TVD
• 11-3/4" Casing (14-1/2" x 12-1/4" Hole):	15432' MD / 13037' TVD
• 10-1/4" Open Hole	15472' MD / 13054' TVD

A casing schematic is attached with the permit request for further details.

Pore Pressure / Fracture Gradient:

The pore pressure and fracture gradients are based on pressures and mud weights seen in offset wells. A pore pressure / fracture gradient plot is attached.

Drilling Fluids:

• 26" Hole:	Seawater/ Barite/ Gel
• 20" Hole:	Water based mud
• 17-1/2" x 14-1/2" Hole:	Synthetic oil based mud
• 14-1/2" x 12-1/4" Hole:	Synthetic oil based mud
• 11-1/2" x 10-1/4" Hole:	Synthetic oil based mud

History:

- BP02 was attempted in the 9-5/8" section and was abandoned due to pack offs.
- BP03 was planned to be initiated through the 11-3/4" casing.
- Whipstock was run in and set between 15410' MD and 15432'.
- Attempt to kick off without success. Pack offs and high drag were seen. Decision was made to plug bypass 3.
- Recover 11-3/4" to perform BP04.

Blow Out Preventer Information:

The BOP stack for the GA-013 well is the T3 16-3/4" 5000 psi stack that is currently on the H&P 205. The BOP stack and equipment currently complies with current regulations, pipe has not been sheared, nor has it been used in a well control situation.

In addition, a letter from an independent third party is included ensuring the BOP system can shear pipe with MASP present.

The maximum working pressure for the BOP stack and associated equipment is 5000 psi. The annular high pressure test will be 70 % of working pressure, 3500 psi. The RAMS and all other equipment will be tested to 4500 psi. This high pressure test will be 500 psi less than maximum working pressure to reduce the amount of stress placed on the BOP stack during testing. This test pressure, 4500 psi, exceeds the highest MASP, 2550 psi, by nearly 2000 psi for the well. Low pressure tests will be in accordance to CFR 250.448 (a). Also to be utilized while testing is the SureTec BOP test monitoring system.

SureTec's effectiveness for high pressure testing is based on a highly effective algorithm for objectively detecting leaks. SureTec operation is based on the use of a proprietary algorithm known as TCLD (Thermally Compensated Leak Detection), a process that compares pressure characteristics of an established passing test (a benchmark) to all subsequent similar tests. SureTec is carefully designed to pass tests based on criteria configurations locked down per installation and in compliance with CFR 30 250.

Note: SureTec system will use software version 2.4.14. No software version upgrade will take place without approval.

Note: If the SureTec system becomes unavailable due to technical issues, charts will be utilized. If SureTec fails during the testing of a component, the testing of that component will be repeated with a chart from the beginning.

Revision History:

19 July 2013	Original Submittal
25 July 2013	Update for CBL and shallow plugs
30 July 20413	Update for 11-3/4" casing recovery
05 August	'A' Caisson Update

Casing Recovery Process:

Note: Current mud weight is 9.5 ppg.

1. Circulate at TD (15,472' MD) with 2-7/8" stinger.
2. Set balanced plug 140 ft³ (25 bbls) of Premium Cement mixed at 16.4 ppg
3. Verify top of cement at 15,308' MD.
4. Set bridge plug above top of cement – 15,280' MD. Test to 1000 psi for 15 minutes.
5. Run E-Line CBL for casing recovery operations.
6. Set packer at +/- 13,750' MD.
7. Displace well to 9.5 ppg.
 - a. Note – the 11-3/4" casing section was drilled with a 9.5 ppg mud.
8. Set balanced plug – 150' (25 bbls / 140 ft³) of Premium Cement at 16.4 ppg.
 - a. +/- 13,600' MD – 13,750' MD
9. Clean out cement to +/- 13,600' MD and verify cement top.
 - a. Minimum of 100' of cement remaining.
10. Set packer 200' below mud line.
 - a. Test above packer to 3000 psi for 15 minutes.
 - b. Test below packer to 3000 psi for 15 minutes.
11. Displace well above packer and riser to seawater.
 - a. Monitor barrel in barrel out during displacement.
12. Monitor well for 4 hours for a negative test. Any flow is considered a failure of negative test.
13. Circulate bottoms up.
14. Unlatch riser from tubing head spool (THS).
15. Recover tubing head spool and lock down bushing with The Perdido Spar winch.
 - a. If needed due to weather or operational issues the THS will be temporarily landed on GA-016.
 - b. Expected duration of unlatch is +/- 48 hours
16. Latch riser to wellhead and test system above packer 4500 psi for 30 minutes
17. Displace riser to 9.5 ppg SBM.
 - Pause for 'A' Caisson repair.
 - Note: See document Supplemental Information for GA-013 Pause for Caisson 'A' Repair for details.
18. Retrieve packer.
19. Cut 11-3/4" casing at: +/- 13,550' MD (450' below 13-3/8" shoe) and +/- 10,490' MD (above top of 13-3/8" liner hanger)
20. Recover 11-3/4" annulus seal assembly.
21. Spear and recover 11-3/4" casing to +/-10,490' MD.
22. Spear and recover 11-3/4" casing to +/-13,550' MD.

Note: If unable to recover casing below 13-3/8" liner hanger in one run, multiple cuts may be required.

Note: There will not be any hydrocarbons uncovered during the casing recovery.
23. Set cement plug, for kick off, from 13,500' MD (50' above top of 11-3/4" casing stub) to 13,000' MD (100' inside 13-3/8" casing).

Note: Plug will be set in 2 stages.

 - a. Plug 1: 13,200 MD - 13,500 MD – 68 bbls – 382 ft³ (10% open hole excess)
 - b. Plug 2: 13,000 MD - 13,200 MD – 38 bbls – 214 ft³ (10% open hole excess)
24. Test 13-3/8" liner and 16" casing to 2700 psi with 9.5 ppg SBM.

Pore Pressure / Fracture Gradient Information

