



Well Control Rig Evaluation

**Deep Pockets Energy
Lucky Strike**

Rig # 101 - Drilling Rig Audit

Well Number 1



Date: Tuesday, March 24, 2009

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Audit Report

Audit Name: Deep Pockets Energy, Rig # 101 - Drilling Rig Audit, Well Number 1
Audit Type: Drilling Rig Audit
Audit Date: 2009/03/24
Completed By:
Comments: imported audit

Client: Deep Pockets Energy
 Toolpusher: Sarge McGruff
 Company Man: T Bone Pickens
 Country: Mason County Texas, USA
 Field: Comanche
 Well Number: 1
 Activity at Time of Audit: Drilling 12 1/4" at 8,800'
 Drilling Contractor: Lucky Strike
 Rig Name: # 101
 Class of Rig: Land. Extra Heavy. 18,500'-24,500'
 Year Built: 1980
 Year Retrofit: 2001
 Derrick Type: Mast. Pyramid.
 Capacity: 1,000,000#
 Derrick Height: 143'
 Substructure Height: 27.4'
 Drawworks: National type UE
 Capacity: 1,000,000#
 Power Source: (3) Diesel Cat 3512
 Mud Pumps: (3) National Oilwell 1600
 HP of Mud Pumps: 1600 HP
 Annular 1:
 Annular 2: 13 5/8" 5M Hydril GK
 Ram 1: 13 5/8" 10M Cameron "U" Pipe
 Ram 2: 13 5/8" 10M Cameron "U" Blind
 Ram 3: 13 5/8" 10M Cameron "U" Variable Pipe
 Ram 4:
 Ram 5:
 Casing Flange: 13 3/8" 5M
 Spool Located: Below Blinds on top and Variable Pipe on bottom.
 Choke Manifold Size: 4 1/16"
 Pressure Rating: 5 M
 Number/Man/Hyd: (0) Hydraulic. (2) Manual
 Mud Gas Separator: 12 ft.x 36". 8" gooseneck to ground. 4" ventline x 40'
 OD/Height:
 Hydraulic Closing Unit Type: Koomey. 20 Bttls. 100 gal. usable fluid.

Auditors: Freeman, Mike

Executive Summary

Customer: Deep Pockets Energy
Location: Rig # 101 - Drilling Rig Audit, Well Number 1
Audit Name: Drilling Rig Audit
Audit Date: 2009/03/24

Executive Summary:

Audit Comments:

Identification of risks associated with any business, and the management of those risks, are important aspects of business management in today's competitive world. It is even more relevant when we talk about the oil and gas exploration and production field. Our Well Control Rig Evaluation services help in addressing identified risks and it is used as a risk analysis tool to proactively prevent loss of well control. It helps to visualize and measure the present condition of the well control components of the rig by mitigating damages and taking corrective actions to have the well control equipment readily available in proper conditions when trying to handle a well control event. Boots & Coots Well Control Rig Evaluations can help reduce the likelihood and consequences of well control incidents and ensure the integrity of your facilities, improve productivity and protect your assets, your employees and the public. Our Well Control Rig Evaluation has allowed many operators around the world to save time and money by reducing the frequency of critical well events.

Boots & Coots Safeguard personnel evaluated Lucky Strike Drilling Rig # 101 in Mason County Texas. The scope of the evaluation was to assess the drilling rig's well control components and determined if they are correctly configured according to the needs of the well being drilled. A post audit meeting was conducted with the Deep Pockets Energy Representatives T Bone Pickens and Santa Anna along with Lucky Strike Drilling Tool Pusher Sarge McGruff to review findings and recommendations. There was one Critical non-compliant finding which is listed immediately below.

Overall, the majority of the rig's working components were all in good shape and in working order. The general working environment was positive although as you will find in our findings and recommendations there are some areas for improvement. Observations were listed as Non Compliant Items. The Recommendations Section offers our solutions to the Non Compliant Items.

Critical Items that are in Non Compliance identified in this report have the potential to lead to a catastrophic event such as a Blowout with injury to personnel, environmental destruction, and equipment damage. Detailed observations and recommendations for the rig are listed below.

The findings in this report are defined and weighted as follows for Non Compliance items:

Critical Findings

Critical findings are based on shortcomings found during an audit which have the potential to lead to loss of well control in the event of a kick. The critical points found in the audit have a weight of 15 points per question.

Major Findings

Major findings are based on shortcomings which may lead to damage to essential equipment or have a detrimental effect on well control operations as a result of inadequate use and/or failure of equipment. The major points found in the audit have a weight of 10 points and have the potential for the escalation of well control problems

Minor Findings

Minor findings are based on shortcomings which may lead to situations that contribute to an incident or to circumstances in which the required standards of operation are not met. These have a weight of 5 points.

Critical Non Compliant Findings

- Have the preventers been field disassembled and inspected in accordance with API Standards (3-5 yrs)? **(Repeat Finding)**

Major Non Compliant Findings

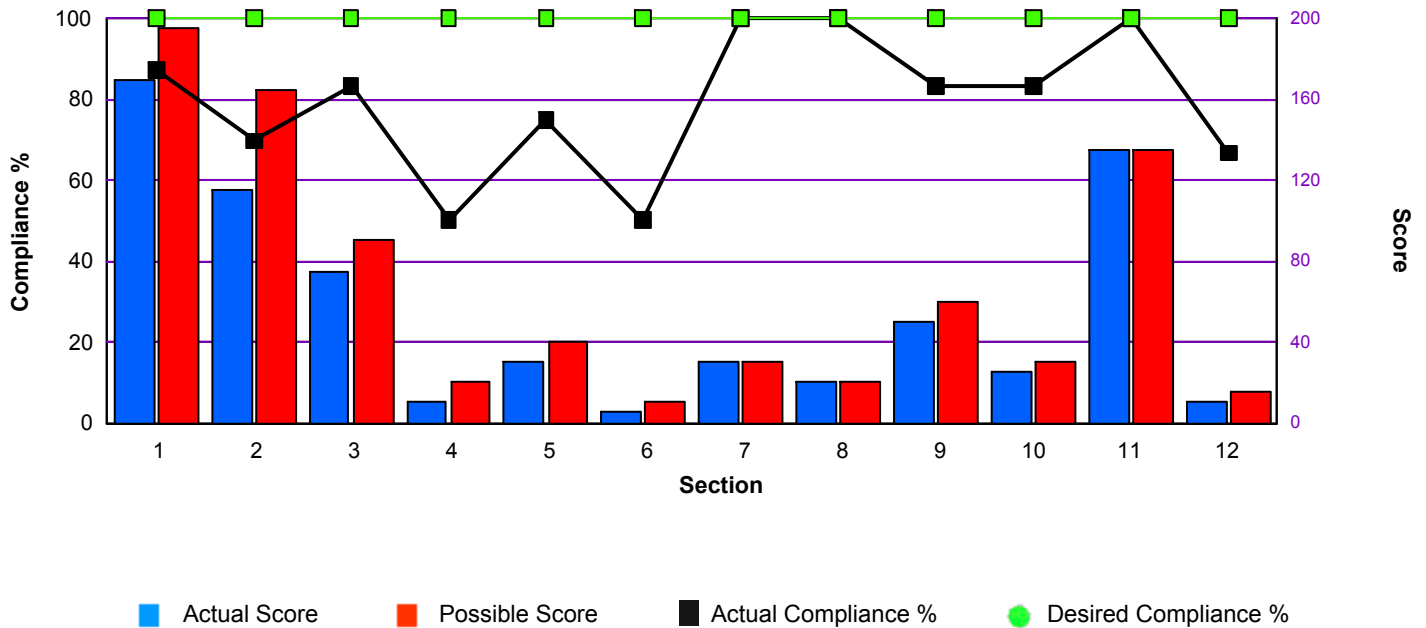
- Upon rig up is the accumulator pump charging time checking to insure 1000 psi to 3000 psi pressure rise is less than 15 minutes? **(Repeat Finding)**
- After closing one annular preventer, all ram-type preventers, and opening one HCR valve, is the remaining pressure 200 psi or more above the minimum recommended pre-charge pressure? **(Repeat Finding)**
- Are BOP and valve control handles clearly labeled and kept in the "open" or "closed" position? **(Repeat Finding)**
- Can the well be closed in quickly while observing and controlling casing pressure? **(Repeat Finding)**
- Does the blind rams accumulator control have a cover but not lock to allow the blind rams to be actuated from the remote station and prevent accidental or unreasoned closure?
- Can gas separated from the mud be safely discharged or flared? **(Repeat Finding)**
- Are inside BOP and full opening TIW safety valve for drill pipe available on the rig floor and can they be manually stabbed? **(Repeat Finding)**
- Are flow checks made prior to pulling off bottom, at casing shoe and at the collars? **(Repeat Finding)**

Minor Non Compliant Findings

- Is the remote accumulator panel checked every shift to confirm proper pressure settings? **(Repeat Finding)**
- Is there a set of drawings available on the rig showing BOP stack, lines, valves, and manifolds used BOP Control Systems? **(Repeat Finding)**
- Are extra parts for chokes on hand? **(Repeat Finding)**
- Are choke lines arranged so that fluids can be discarded, gas separated safely, or mud recovered and degassed? **(Repeat Finding)**
- Is the choke manifold equipped with both drill pipe and casing pressure gauges? **(Repeat Finding)**
- Are crossover subs available so inside BOP and full opening safety valve can be made up on drill collars?
- Are "drill collar" drills held and treated as above? **(Repeat Finding)**
- Does the toolpusher have evidence of training (records, cards, and certificates) in well control for all members of the crew? **(Repeat Finding)**

Section	Section Header	Actual Score	Possible Score	Actual Compliance %	Desired Compliance %
1	Accumulator	170.00	195.00	87.18 %	100.00%
2	Blowout Preventer	115.00	165.00	69.70 %	100.00%
3	Choke	75.00	90.00	83.33 %	100.00%
4	Gas Separation	10.00	20.00	50.00 %	100.00%
5	Inside BOP, Kelly Cock, Valves, and Floats	30.00	40.00	75.00 %	100.00%
6	Drill Collar Safety	5.00	10.00	50.00 %	100.00%
7	Flow Indicators	30.00	30.00	100.00 %	100.00%
8	Casing	20.00	20.00	100.00 %	100.00%
9	Tripping Procedures	50.00	60.00	83.33 %	100.00%
10	Drills	25.00	30.00	83.33 %	100.00%
11	Rig Specifications	135.00	135.00	100.00 %	100.00%
12	Rig Crew Training	10.00	15.00	66.67 %	100.00%
Totals		<u>675.00</u>	<u>810.00</u>	<u>83.33 %</u>	<u>100.00 %</u>

Rating Scale: Excellent 90 - 100 Good 80 - 89 Fair 70 - 79 Poor 0 - 69 **Good**



Summary of Non Compliance Findings and Recommendations

Critical Findings:

- 2-0-20 ***Have the preventers been field disassembled and inspected in accordance with API Standards (3-5 yrs)?***
 CRITICAL. At the time of this audit negotiations had begun on responsibilities to complete this requirement.

Major Findings:

- 1-0-12 ***Upon rig up is the accumulator pump charging time checking to insure 1000 psi to 3000 psi pressure rise is less than 15 minutes?***
 At the time of this audit the test was not being performed. The procedure and form for documentation was given to T.P. Operator's Consultant states that this will be done on next rig-up and results documented.
- 1-0-21 ***After closing one annular preventer, all ram-type preventers, and opening one HCR valve, is the remaining pressure 200 psi or more above the minimum recommended pre-charge pressure?***
 At the time of this audit the test was not being performed. The procedure and form for documentation was given to T.P. Operator's Consultant states that this will be done during each BOP test and results documented.
- 2-0-14 ***Are BOP and valve control handles clearly labeled and kept in the "open" or "closed" position?***
 Rig floor remote BOP panel to be cleaned up and painted. Re labeling will be done after the paint job.
- 2-0-15 ***Can the well be closed in quickly while observing and controlling casing pressure?***
 At the time of this audit the process and ordering of one casing and one drill pipe press gauge with sensor for the choke manifold had begun along with the design of a gauge mounting stand.
- 2-0-19 ***Does the blind rams accumulator control have a cover but not lock to allow the blind rams to be actuated from the remote station and prevent accidental or unreasoned closure?***
 The cover is installed but not sized correctly to allow the handle to move into a fully open position. The recommendation is to removed the cover and extend the open side to accomodate full movement.
- 4-0-1 ***Can gas separated from the mud be safely discharged or flared?***
 T.P. and S.R. consultant state that hammer unions will be attached to extensions and saved for rapid assembly if needed.
- 5-0-1 ***Are inside BOP and full opening TIW safety valve for drill pipe available on the rig floor and can they be manually stabbed?***
 It is recommended that a clamp be fabbed and installed for manually lifting and stabbing the FOSV.
- 9-0-2 ***Are flow checks made prior to pulling off bottom, at casing shoe and at the collars?***
 Consultant states that flowchecks will be preformed at Drill Collars.

Minor Findings:

- 1-0-11 ***Is the remote accumulator panel checked every shift to confirm proper pressure settings?***
T.P. states that this will be added to the Driller's hand-over notes.
- 2-0-2 ***Is there a set of drawings available on the rig showing BOP stack, lines, valves, and manifolds used BOP Control Systems?***
At the time of the audit no such drawing existed. During the exit interview an Operator's Consultant had begun the task of drawing the requested items. Proper procedures will be attached to the drawing showing equipment numbered for the testing and tool joint space-out process.
- 3-0-8 ***Are extra parts for chokes on hand?***
T.P. states that replacement parts will be sourced from Weatherford.
- 3-0-11 ***Are choke lines arranged so that fluids can be discarded, gas separated safely, or mud recovered and degassed?***
T.P. and S.R. consultant state that hammer unions will be attached to extensions and saved for rapid assembly if needed.
- 3-0-18 ***Is the choke manifold equipped with both drill pipe and casing pressure gauges?***
At the time of this audit the process and ordering of one casing and one drill pipe press gauge with sensor for the choke manifold had begun along with the design of a gauge mounting stand.
- 6-0-1 ***Are crossover subs available so inside BOP and full opening safety valve can be made up on drill collars?***
T.P. states that drill string crossovers are in use. Operator's Consultant states that additional crossovers will be sourced and made ready on the rig floor.
- 10-0-3 ***Are "drill collar" drills held and treated as above?***
Consultant states that D.C. drills will be included and documented to API standards.
- 12-0-2 ***Does the toolpusher have evidence of training (records, cards, and certificates) in well control for all members of the crew?***
The T.P. states he will attempt to gather evidence for all relevant members of the crew.

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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Accumulator

Desired Compliance - (100.00%)

1-0-11	<p>Is the remote accumulator panel checked every shift to confirm proper pressure settings? (Repeat Finding) No Criteria: Best Industry Practice Consequence Analysis: BOPs may not be functional T.P. states that this will be added to the Driller's hand-over notes.</p>	0.00 / 5.00
1-0-12	<p>Upon rig up is the accumulator pump charging time checking to insure 1000 psi to 3000 psi pressure rise is less than 15 minutes? (Repeat Finding) No REF: IADC Chapter K, B. K2-20, V. H. 2 Criteria: "Pump systems should be capable of delivering sufficient volume of control fluid with the accumulator isolated from service to pump the entire accumulator system up from accumulator precharge pressure to full charging pressure (the maximum system pressure) within 15 minutes." Consequence Analysis: A) Possible Leak in the system B) Loss of efficiency C) Accumulator charging system is too small to efficiently close the BOPs At the time of this audit the test was not being performed. The procedure and form for documentation was given to T.P. Operator's Consultant states that this will be done on next rig-up and results documented.</p>	0.00 / 10.00
1-0-21	<p>After closing one annular preventer, all ram-type preventers, and opening one HCR valve, is the remaining pressure 200 psi or more above the minimum recommended pre-charge pressure? (Repeat Finding) No REF: API 53 12.3.2 Criteria: "the remaining pressure shall be 200 psi (1.38 MPa) or more above the minimum recommended pre-charge pressure." Consequence Analysis: A1) A specific Ram or the Annular could fail resulting on having insufficient fluid to close other Rams; B1) Uncontrolled release from the wellbore; A2) If HCR can not be opened, it would be impossible to circulate out a kick; B2) Exceed MASP</p>	0.00 / 10.00

Audit Report

Detailed Non Compliance Findings

	Actual Score	Possible Score
(Maximum Allowable Surface Pressure); C) BOP equipment failure		
At the time of this audit the test was not being performed. The procedure and form for documentation was given to T.P. Operator's Consultant states that this will be done during each BOP test and results documented.		
Section Score:	170.00 / 195.00	
Section Findings Total:	3 / 22	

Blowout Preventer

Desired Compliance - (100.00%)

2-0-2	<p>Is there a set of drawings available on the rig showing BOP stack, lines, valves, and manifolds used BOP Control Systems? (Repeat Finding) No REF: International Association of Independent Drilling Contractors Case Guidelines Part 3 Sec 3.3.3 and Sections 3.10 and Sections A3 Criteria: "A3 - contains a list of drawings and schematics that the drilling contractor should have item 5-7 includes (a) mud process schematics, (b) choke and kill isometric, and (c) BOP stack layout." Consequence Analysis: Confusion in procedures to secure the well</p> <p style="background-color: #f2f2f2;">At the time of the audit no such drawing existed. During the exit interview an Operator's Consultant had begun the task of drawing the requested items. Proper procedures will be attached to the drawing showing equipment numbered for the testing and tool joint space-out process.</p>	0.00 / 5.00
2-0-11	<p>Is there a step set of illustrations showing how to test all BOP items? (Repeat Finding) No REF: API Spec 16C Choke and Kill Systems Sec. 9.17 API 53 Recommended Practices for Blowout Prevention Equipment Systems for Drilling Wells Section 17.2.4 API Spec 7L Procedures to Mfg., Inspect, Repair, and Remanufacture Drilling Equipment Criteria: "The manufacturer shall prepare and have available an Operating Manual for each model and size Choke and Kill System manufactured in accordance to this specification" The operating manual shall contain the following information: -Operation and Installation Instructions -Seals information</p>	Not Scored

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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-Maintenance and testing information
 -Disassembly and assembly information
 -Parts information
 -Storage information
 "Technique and step by step or how to test procedure should be developed for each rig because of varying equipment, different installation arrangements and well specific drilling programs.
 The procedure for testing the BOP stack, drill string safety valves, choke kill lines, and manifold upstream of the buffer chamber are usually similar for most rigs. The mfg. operating and maintenance documents, contractor maintenance programs, and operating experiences should be incorporated into the specific tests procedures."
 "Documented instructions and procedures for any system assembly, testing, and commissioning that is required to be performed at the installation site shall be available prior to commencing installation."

Consequence Analysis:
 Inefficient in testing BOP components

At the time of the audit no such drawing existed. During the exit interview an Operator's Consultant had begun the task of drawing the requested items. Proper procedures will be attached to the drawing showing equipment numbered for the testing and tool joint space-out process.

2-0-14

Are BOP and valve control handles clearly labeled and kept in the "open" or "closed" position?

(Repeat Finding)
No

REF:
 API Recommended Practice 53 Blow Out Prevention Equipment Systems for Drilling Wells, Sec 12.5.3.f
 API 12 Sec 5.3(f) and IADC Ch K Sec 2 (1.C)

Criteria:
 "Control valves must be clearly marked to indicate which preventer or choke line valve each control valve operates and the position of the valves (open, closed, neutral)."

Consequence Analysis:
 There might be a leak when the accumulator is needed

Rig floor remote BOP panel to be cleaned up and painted. Re labeling will be done after the paint job.

0.00 / 10.00

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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On-Off, Open-Close.JPG



2-0-15	Can the well be closed in quickly while observing and controlling casing pressure?	0.00 / 10.00
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(Repeat Finding)

No

Criteria:

Best Industry Practices

Consequence Analysis:

A) Increased closing time B) Larger Influx C) Exceed kick tolerance D) Formation or equipment failure

At the time of this audit the process and ordering of one casing and one drill pipe press gauge with sensor for the choke manifold had begun along with the design of a gauge mounting stand.

2-0-19	Does the blind rams accumulator control have a cover but not lock to allow the blind rams to be actuated from the remote station and prevent accidental or unreasoned closure?	0.00 / 10.00
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No

REF:

API Recommended Practice 53 Blow Out Prevention Equipment Systems for Drilling Wells, Sec 12.5.3.f

Criteria:

"The control valve handle that operates the blind rams should be protected to avoid unintentional operation, but allow full operation from the remote panel without interference."

Consequence Analysis:

Unable to close blind rams from floor then the remote station is useless

The cover is installed but not sized correctly to allow the handle to move into a fully open position. The recommendation is to removed the cover and extend the open side to accomodate full movement.

2-0-20	Have the preventers been field disassembled and inspected in accordance with API Standards (3-5 yrs)?	0.00 / 15.00
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Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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(Repeat Finding)

No

REF:

American Petroleum Institute 53 Recommended Practice Blow Out Prevention Recommended Equipment Systems for Drilling Wells, Sec. 17.10.3

Criteria:

"After every 3-5 years of service, the BOP stack, choke manifolds, and diverter components should be disassembled and inspected in accordance with the manufacturer's guidelines. Elastomeric components should be changed out and surface finishes should be examined for wear and corrosion. Critical dimensions should be checked against the manufacturer's allowable wear limits. Individual components can be inspected on a staggered schedule. A full internal and external inspection of the flexible choke and kill lines should be performed in accordance with the equipment manufacturer's guidelines."

Consequence Analysis:

Surface failure

CRITICAL. At the time of this audit negotiations had begun on responsibilities to complete this requirement.

Section Score:	115.00 / 165.00
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Section Findings Total:	6 / 28
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Choke

Desired Compliance - (100.00%)

3-0-8	Are extra parts for chokes on hand?	0.00 / 5.00
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(Repeat Finding)

No

REF:

American Petroleum Institute 53 Recommended Practice Blow Out Prevention Recommended Equipment Systems for Drilling Wells Sections 8.5

Criteria:

"An adequate supply of spare parts is important for components subject to wear or damage or whose failure seriously reduces the effectiveness of the manifold or choke line. Standardization of components is recommended to minimize the inventory required. Although the inventory will vary from rig to rig, a generalized recommended minimum spare parts list" is contained in sections a-e.

Consequence Analysis:

Reduced redundancy could lead to:

A) Gas migration; B) Formation break down; C) Underground Blowout

T.P. states that replacement parts will be sourced from Weatherford.

3-0-11	Are choke lines arranged so that fluids can be discarded, gas separated safely, or mud recovered and degassed?	0.00 / 5.00
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Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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(Repeat Finding)

No

REF:

IADC - see figure K1-3E

Consequence Analysis:

Fire/ Explosion due to gas ignition source

T.P. and S.R. consultant state that hammer unions will be attached to extensions and saved for rapid assembly if needed.

ENF-40 005.jpg



3-0-18 Is the choke manifold equipped with both drill pipe and casing pressure gauges?

0.00 / 5.00

(Repeat Finding)

No

REF:

API Recommended Practices 8.2 (i) (j)

Criteria:

"Pressure gauges suitable for operating pressure and drilling fluid service should be installed so that drill pipe and annulus pressures may be accurately monitored and readily observed at the station where well control operations are to be conducted".

"The choke control station, whether at the choke manifold or the remote from the rig floor, should include all monitors necessary to furnish an overview of the well control situation. The ability to monitor and control from the same location standpipe pressure, casing pressure, pump strokes, etc. greatly increases well control efficiency."

Consequence Analysis:

Because of lack of redundancy it could lead to:

A) Gas migration; B) Formation break down; C) Underground blowout

At the time of this audit the process and ordering of one casing and one drill pipe press gauge with sensor for the choke manifold had begun along with the design of a gauge mounting stand.

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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Ck.Manif..jpg



Section Score:	75.00 / 90.00
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Section Findings Total:	3 / 18
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Gas Separation

Desired Compliance - (100.00%)

4-0-1	Can gas separated from the mud be safely discharged or flared?	0.00 / 10.00
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(Repeat Finding)

No

REF:

American Petroleum Institute 53 Recommended Practice Blow Out Prevention Recommended Equipment Systems for Drilling Wells Sec 15.9

Criteria:

"A bypass line to the flare stack must be provided in case of malfunction or in the event the capacity of the mud/gas separator is exceeded."

Consequence Analysis:

Fire/ Explosion due to gas ignition source

T.P. and S.R. consultant state that hammer unions will be attached to extensions and saved for rapid assembly if needed.

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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M-G Sep..jpg



Section Score:	10.00 / 20.00
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Section Findings Total:	1 / 3
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Inside BOP, Kelly Cock, Valves, and Floats

Desired Compliance - (100.00%)

5-0-1	Are inside BOP and full opening TIW safety valve for drill pipe available on the rig floor and can they be manually stabbed? (Repeat Finding)	0.00 / 10.00
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No

REF:
API 53 15.2

Criteria:

"A spare drill pipe safety valve should be readily available (i.e., stored in open position with wrench accessible) on the rig floor at all times."

Consequence Analysis:

A) Unable to run wireline tools - bridge plug; B) It could lead to an inside drill pipe blowout

It is recommended that a clamp be fabbed and installed for manually lifting and stabbing the FOSV.

Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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TIW.jpg



Section Score:	30.00 / 40.00
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Section Findings Total:	1 / 6
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Drill Collar Safety

Desired Compliance - (100.00%)

6-0-1	Are crossover subs available so inside BOP and full opening safety valve can be made up on drill collars?	0.00 / 5.00
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No

REF:
API 53 15.1

Criteria:
"This valve or valves should be equipped to screw into any drill string member in use."

Consequence Analysis:
A) Inability to make up TIW valve; B) Inside Drill Pipe Blowout

T.P. states that drill string crossovers are in use. Operator's Consultant states that additional crossovers will be sourced and made ready on the rig floor.

Section Score:	5.00 / 10.00
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Section Findings Total:	1 / 4
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Flow Indicators

Desired Compliance - (100.00%)

Section Score:	30.00 / 30.00
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Section Findings Total:	0 / 3
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Audit Report

Detailed Non Compliance Findings

Actual Score	Possible Score
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Casing

Desired Compliance - (100.00%)

Section Score:	20.00 / 20.00
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Section Findings Total:	0 / 5
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Tripping Procedures

Desired Compliance - (100.00%)

9-0-2	Are flow checks made prior to pulling off bottom, at casing shoe and at the collars?	0.00 / 10.00
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(Repeat Finding)

No

Criteria:

Best Well Control Practices

Consequence Analysis:

A) Inability to detect influx; B) Inability to detect kicks

Consultant states that flowchecks will be preformed at Drill Collars.

Section Score:	50.00 / 60.00
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Section Findings Total:	1 / 7
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Drills

Desired Compliance - (100.00%)

10-0-3	Are "drill collar" drills held and treated as above?	0.00 / 5.00
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(Repeat Finding)

No

REF:

American Petroleum Institute 59 Recommended Practice for Well Control Operation, Sec 11.3

MMS 250.408 (a) (5)

Criteria:

"Drills should be documented, executed, repetitive, and followed-up to correct identified problems."

(5) Tripping pipe. A drill conducted during a trip shall include the following as practicable: (i) Detect kick and sound alarm; (ii) Install safety valve, close safety valve; (iii) Position pipe, prepare to close annular preventer; (iv) Install inside preventer, open safety valve; (v) Record time; (vi) Record casing pressure; (vii) Check all valves on choke manifold and BOP system for correct position (open or closed); (viii) Check for leaks on BOP system component and choke manifold; (ix) Check flow line and choke exhaust lines for flow; (x) Check accumulator pressure;

Consequence Analysis:

Failure to react properly during a well control event

Audit Report

Detailed Non Compliance Findings

	Actual Score	Possible Score
Consultant states that D.C. drills will be included and documented to API standards.		
Section Score:	25.00	30.00
Section Findings Total:	1 / 5	

Rig Specifications

Desired Compliance - (100.00%)

Section Score:	135.00	135.00
Section Findings Total:	0 / 24	

Rig Crew Training

Desired Compliance - (100.00%)

12-0-2	Does the toolpusher have evidence of training (records, cards, and certificates) in well control for all members of the crew? (Repeat Finding)	0.00 / 5.00
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No

REF:

American Petroleum Institute Specification PI T-6 Training and Qualifications for Well Control Equipment and Techniques for Wireline Operations on Offshore Locations section 3.2, API 76 Sec 3.2.(b)

Criteria:

"Test results shall be entered and maintained in the successful candidate's permanent training record. Appropriate documentation of training shall be provided the successful candidate and copies maintained by the training organization."

Consequence Analysis:

Inability to properly handle or respond to a well control event resulting in a blowout

The T.P. states he will attempt to gather evidence for all relevant members of the crew.

Section Score:	10.00	15.00
Section Findings Total:	1 / 3	
Audit Total Score:	675.00	810.00
Audit Compliance:	83.33%	
Findings Total:	18 / 128	

<u>Section</u>	<u>Section Header</u>	<u>Actual Score</u>	<u>Possible Score</u>	<u>Actual Compliance %</u>	<u>Desired Compliance %</u>
1	Accumulator	170.00	195.00	87.18 %	100.00 %
2	Blowout Preventer	115.00	165.00	69.70 %	100.00 %
3	Choke	75.00	90.00	83.33 %	100.00 %
4	Gas Separation	10.00	20.00	50.00 %	100.00 %
5	Inside BOP, Kelly Cock, Valves, and Floats	30.00	40.00	75.00 %	100.00 %
6	Drill Collar Safety	5.00	10.00	50.00 %	100.00 %
7	Flow Indicators	30.00	30.00	100.00 %	100.00 %
8	Casing	20.00	20.00	100.00 %	100.00 %
9	Tripping Procedures	50.00	60.00	83.33 %	100.00 %
10	Drills	25.00	30.00	83.33 %	100.00 %
11	Rig Specifications	135.00	135.00	100.00 %	100.00 %
12	Rig Crew Training	10.00	15.00	66.67 %	100.00 %
Totals		<u>675.00</u>	<u>810.00</u>	<u>83.33 %</u>	<u>100.00 %</u>

*Rating Scale: Excellent 90 - 100 Good 80 - 89 Fair 70 - 79 Poor 0 - 69 **Good***