Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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Form C-103
May 27, 2004

WELL API NO. **30 – 015 – 22767**

13. Indicate Type of Lease STATE ☒ FEE ☐

13. State Oil & Gas Lease No. **647-364**

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: **Empire Abo Unit "F"**

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

8. Well Number: **335**

2. Name of Operator: **BP America Production Company**

9. OGRID Number: **000778**

3. Address of Operator: **P. O. Box 1089 Eunice, New Mexico 88231**

10. Pool name or Wildcat: **Empire Abo**

13. Well Location
Unit Letter **E** : **2250** feet from the **North** line and **570** feet from the **West** line
Section **34** Township **17S** Range **28E** NMPM County **Eddy**

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **3664' GR**

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER:			☐	OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

P&A operations were commenced 11/18/09 and successfully plugged the wellbore through the Queen formation at 1320'. The upper section was plugged to 78' RKB but pressure communication still existed to the surface via the 8 5/8" x 5½" annulus; equipment was moved off the site and operations were suspended on 12/17/09 for further evaluation and planning. Operations resumed 7/12/10 and the abandonment was completed 10/11/10; the final abandonment included (1) cleaning out previous plugs to the top of the Glorieta plug at 2945', (2) running additional logs to evaluate possible pressure sources and quality of the annular isolation, (3) perfing the Yates between 501' - 531' overall and squeezing w/ 250 sx "C", (4) washing over - milling - removing the 5½" production casing to 196', (5) pressure testing and performing a negative test to confirm that there was no fluid or gas entry into the wellbore from below 196' and (6) filling the wellbore with cement from 414' - 0'. Due to the length and complexity of this operation, the following attachments to this C-103 are included to provide a more complete operations history of this abandonment: (A) a schematic depicting the final P&A status of the entire wellbore, (B) a schematic of only the upper section of the wellbore that provides greater detail of the operations in the problem area and (C) a chronological operations summary for the entire job.

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I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.**

SIGNATURE M. D. Westmoreland TITLE **Wells Operation Superintendent** DATE **10 / 15 / 10**

Type or print name **M. D. Westmoreland** E-mail address: **dan.westmoreland@bp.com** Telephone No. **432 / 688-5245**

For State Use Only

APPROVED BY: Phil Hawkins TITLE _____ DATE 10/29/2010

Conditions of Approval (if any):

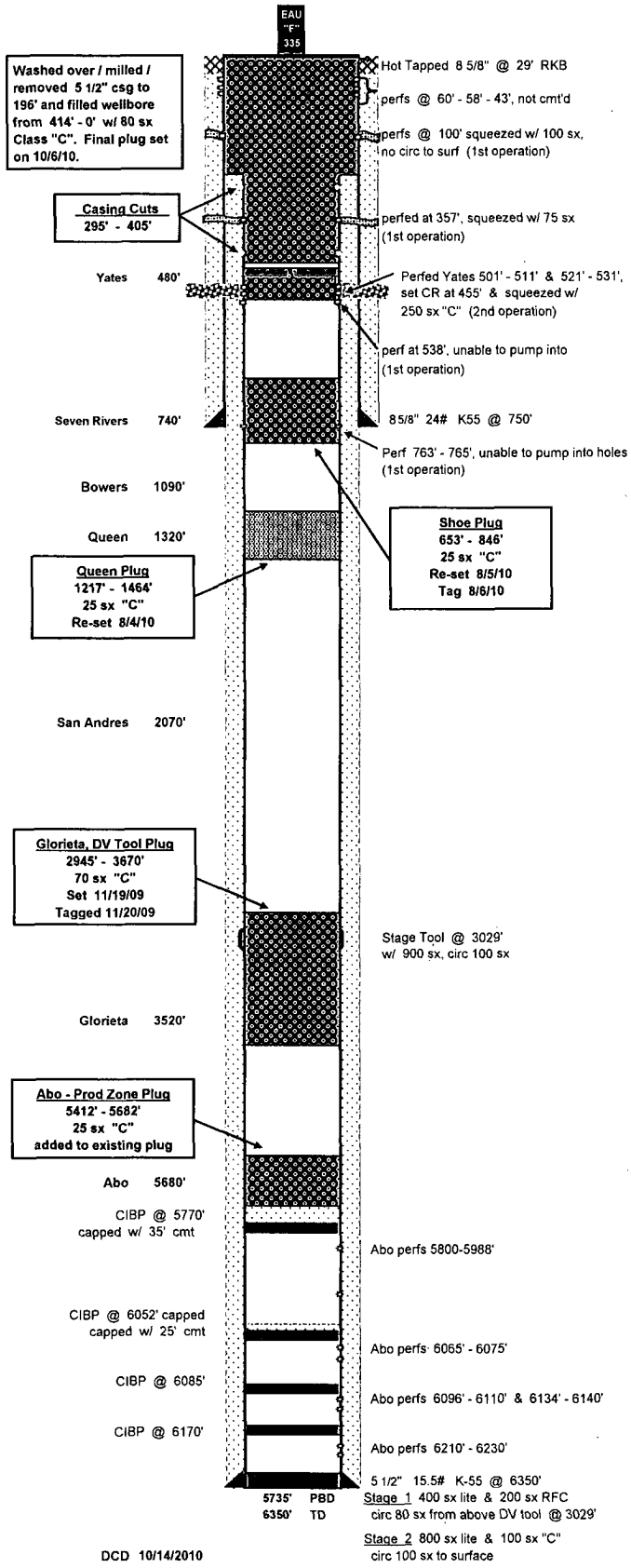
Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms. www.emnrd.state.nm.us/ocd.

Empire Abo Unit F-335
Empire Abo Field

API No. 30-015-22767

2250' FNL & 570' FWL
Section 34 - T17S - R28E
Eddy County, New Mexico

(Not to Scale)



DCD 10/14/2010

Empire Abo Unit "F" #335
Empire Abo Field

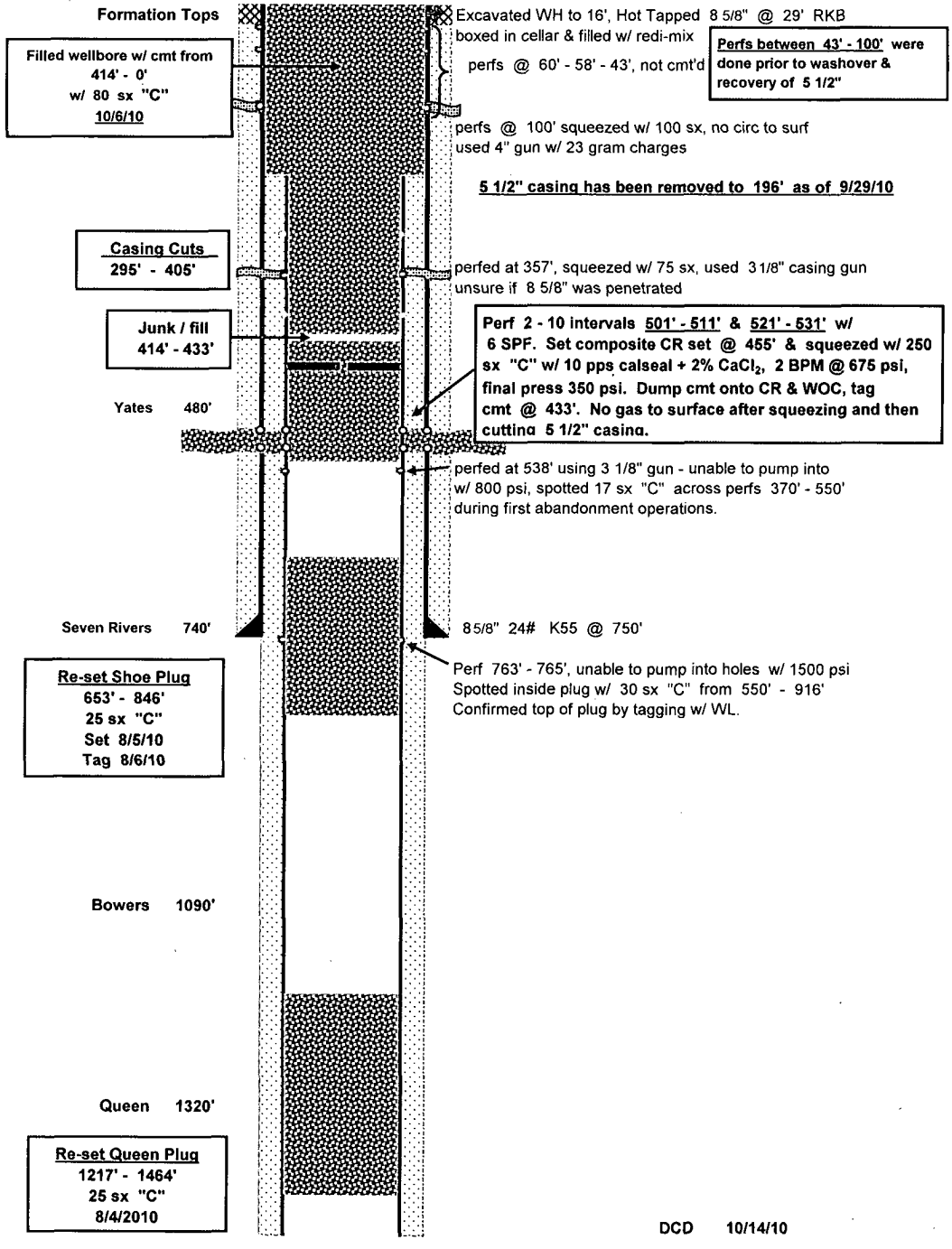
API No. 30-015-22767

2250' FNL & 570' FWL
Section 34 - T17S - R28E
Eddy County, New Mexico

Final P&A Status

This schematic provides details of the abandonment operations for the upper wellbore.

RKB 3677'
GL 3664'



DCD 10/14/10

Empire Abo Unit "F" #335

API No. 30 - 015 - 22767

Plugging Operations Summary

11/18/09 thru 11/19/09	MIRU & commence operations. Test existing CIBP above producing perfs, csg & BOP to 500 psi, OK. TIH w/ tbg, tagged plug @ 5682' & spotted 25 sx Class "C" from 5682' - 5412'. Pulled above cement & circulated hole with 9.5 ppg mud laden fluid. Pulled to 3670' and spotted 70 sx Class "C" across top of Glorieta zone @ 3520' and across Stage Cementing Tool @ 3029'. Pulled tbg to above cement and WOC overnight.
11/20/09 thru 11/22/09	Check 8 5/8" x 5 1/2" annulus and noticed bubbles at 20 - 30 second intervals. Had bubble on outside of 8 5/8" when annulus was closed - decided to run radial GR-CBL to confirm TOC in annulus (original drilling report stated that cement had been circulated). Tagged top of Glorieta plug @ 2945', POH w/ tbg. Ran CBL from 2900' to surface, TOC @ 114' and good isolation across top of Queen @ 1320' and across 8 5/8" surface casing shoe @ 750'. Checked annulus, had light blow with no indications of LEL or hydrocarbon. (Note: when WH was excavated on 12/7/09 found test port on WH was missing, which allowed the bubbles to rise outside of 8 5/8" casing & prevented obtaining accurate SIP on annulus. Installed needle valve and outside bubbles ceased)
11/23/09 thru 11/24/09	Light blow on annulus. LEL = 29, no H2S. TIH w/ tbg & spotted 25 sx "C" from 1450' - 1200' across top of Queen @ 1320'. TOH & perfed 5 1/2" csg from 763' - 765' = 13' below 8 5/8" shoe for squeeze. Set pkr @ 570' and was unable to pump into perfs after sequentially raising press to max of w/ 1500 psi. POH w/ pkr & ran open-ended tbg to 916' & spotted 30 sx Class "C". RU WL - ran perf gun, tagged top of plug @ 550'. Perfed 5 1/2" csg @ 538', 58' below top of Yates @ 480'. RD WL, ran pkr & set @ 500' but unable to pump into perfs w/ 800 psi. Pulled pkr, ran open-ended tbg to 550' & spotted 17 sx Class "C" w/ 3% calcium chloride. RU WL, TIH w/ 4" perf gun, tagged top of plug @ 370' & perfed 5 1/2" csg @ 357' (using larger gun to try to assure penetration of both the 5 1/2" & 8 5/8" casings). Set pkr @ 164', mixed & pumped 75 sx Class "C" at 2 BPM & 750 psi and squeezed to max of 900 psi. ISIP = 275 psi - no returns to surface from annulus or from outside of 8 5/8" csg while squeezing. Cmt was displaced to 257'. Monitor well overnight.
11/25/09	ONSITP = 30 psi. Bled tbg pressure to 0 psi, released and reset pkr to assure it was free, OK. Monitored well while deciding on future plan. Annulus still bubbling but no LEL detected.
11/30/09	Annulus open and checked its press = 4 psi. LEL reading 0 - 17, caught gas sample for analysis. Loaded 8 5/8" x 5 1/2" annulus & press to 500 psi, bled to 240 psi. Tagged cmt plug inside 5 1/2" csg @ 246' w/ open-ended tbg. Set pkr at 215' & tested below to 500 psi, OK. Pulled pkr & tested 5 1/2" from 0' - 246' with 560 psi, OK. Left annulus open and monitored well overnight.
12/1/09	0 psi on well - open to containment. No fluid flow, LEL = 0. SD due to weather.

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Plugging Operations Summary

12/2/09 0 psi on well, still bubbling from annulus. Ran 4" casing gun & perfed at 100', 14' above TOC in annulus (4 SPF at 90 degree phasing w/ 23 gram charge). Pumped into perfs w/ 1/2 BPM and 500 psi, could not establish circulation to surface via 8 5/8" x 5 1/2" annulus. Mixed & pumped 100 sx "C" at 1/2 BPM and 500 psi. ISIP = 168 psi. WOC & monitor well, bubbles still present in the 8 5/8" x 5 1/2" annulus. WOC and monitor well overnight.

12/3/09 Tag TOC w/ tbg @ 78'. Perfed 5 1/2" csg @ 60' (4 SPF, 90 degree phasing). Attempted to pump down 5 1/2" with 700 psi maximum - bled to 90 psi when pump shut down and then bled off slowly. Removed valves from surface head, appeared to have cement in annulus. Decided to re-perf to assure csg was fully penetrated - perfed add'l 4 SPF @ 58'. Attempted to pump into perfs, sequentially raised pressure from 500 to 1000 psi - could not establish injection rate and had only a slow bleed-off. Monitor overnight, still bubbling from annulus.

12/4/09 Shut down due to weather, monitor well - still bubbling from annulus.

12/5/09 40 psi on 5 1/2" csg. Shut-in annulus to monitor pressure buildup.

12/6/10 40 psi on 5 1/2" csg, 14 psi on annulus. Bled 5 1/2" - recovered 1/2 bbl clear fluid - annulus fell to 2 psi.

12/7/09 50 psi on 5 1/2" csg, 14 psi on annulus. Had on-site planning meeting with Cudd, plan to hot tap 8 5/8". Excavated WH to surface casing head - found test port missing - installed needle valve and shut well in. RD equip and prep to excavate WH to 15' & hot tap 8 5/8" casing.

12/8/09 75 psi on 5 1/2", 80 psi on annulus. Did risk assessment on excavation operations.

12/9/09 120 psi on 5 1/2" csg, 110 psi on annulus. Bled both to 0 psi in 30 seconds. Start excavation of WH.

12/10/09 150 psi on 5 1/2" csg, 145 psi on annulus. Both bled to 0 psi in 10 seconds. Continued to excavate.

12/11/09 160 psi on 5 1/2" csg, 180 psi on annulus. Both bled to 0 psi in 10 seconds. LEL = 0. Completed excavation to 16' below ground level. Performed rescue drill in prep to do hot tap. RU Cudd & hot tapped 8 5/8" casing @ 29' as measured with RKB correction. No cement in annulus at point of tap, attempted to pump into annulus via hot tap - sequentially pressured to 800 psi with no circulation.

12/12/10 Repeated rescue drill. 120 psi on 5 1/2" csg, 160 psi on annulus. Bled both down in 5 seconds. Made necessary WH preparations and RU WL truck. WIH w/ perf and tagged @ 43' - unable to get deeper. Press 5 1/2" csg to 300 psi and perfed 5 1/2" csg @ 41' - 42' w/ 4 SPF, lost 100 psi when perfed and gun became stuck. Worked gun free & POH. Pressured 5 1/2" csg to 700 psi, slow bleed off - no circ to hot tap.

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Plugging Operations Summary

12/13/09 125 psi on 5 1/2" csg, 120 psi on annulus. Pressured 5 1/2" csg to 750 psi & annulus to 800 psi - bled to 50 psi in 45 seconds. Increased pressures to 1000 psi, bled to 500 psi in 4 minutes. Increased to 1100 psi, bled to 500 psi in 4 minutes. Released pressures and checked all pumping equipment and lines, OK. Pressured 5 1/2" csg to 1400 psi & annulus built to 1000 psi, each bled to 500 psi in 4 mins. Check hot tap connections to be sure these are not obstructed, OK. Pressured 5 1/2" csg to 1600 psi and then pressured to 2000 psi and bled off for 3 cycles. 1st bleed - fell to 1200 psi in 3' 30"; 2nd bleed - fell to 1200 psi in 3' 40"; 3rd bleed - fell to 1200 psi in 4 minutes. Pressured to 2000 psi and surge several times with no change. Pressured annulus to 560 psi, bled to 525 psi & held. Released press & shut-in overnight.

12/14/09 SIP = 150 psi on 5 1/2" csg & 145 psi on annulus. Installed riser from hot tap to above GL, stabilized WH with wooden cellar filled with ready-mix and closed excavation. Operations suspended while planning next steps in abandonment.

1/5/10 SIP 5 1/2" csg = 175 psi 8 5/8" x 5 1/2" annulus = 165 psi. Remains SI.

6/29/10 Since 3/29/10, wellbore has been flowed down intermittently since 3/29/10 from all outlets to determine if source would eventually deplete to 0 psi. The pressures initially were 5 1/2" csg = 140 psi 8 5/8" x 5 1/2" annulus = 100 psi saddle = 140 psi. The pressures as of 6/29/10: 5 1/2 csg = 52 psi 8 5/8" x 5 1/2" = 48 psi Saddle = 22 psi.

7/12/10 The pressures as of 7/12/10:
5 1/2 csg = 58 psi 8 5/8" x 5 1/2" = 52 psi Saddle = 30 psi.
MI PU and support equipment for P&A. SDON

7/13/10 5 1/2 csg = 58 psi 8 5/8" x 5 1/2" = 52 psi Saddle = 30 psi.
5 1/2" bled to 0 psi in 35 seconds, 8 5/8" still had 52 psi after 5 1/2" bled off.
Bled 8 5/8" x 5 1/2" to 0 psi in 10 sec. Saddle still had 28 psi after other outlets bled, saddle bled to 0 in 2 sec. SI 1 hr, 5 1/2 = 10 psi, 8 5/8 = 10 psi, saddle = 5 psi
Hooked vac truck to TH outlets & pulled vacuum while ND BOP & NU new BOP.
Set plug & test BOP to 250 & 1500 psi. Unable to test annular as its operation unseats test plug. SDON.

7/14/10 5 1/2 csg = 62 psi 8 5/8" x 5 1/2" = 62 psi Saddle = 53 psi.
Tested annular to 250 & 1500 psi. Ran 4 3/4" blade bit, tag @ 43', washed to 70' & drilled cmt to 220' - fell out. POH, LD tbg & PU add'l DC (now have 6 - 3 1/2"). SDON.

7/15/10 Tbg = 30 psi 5 1/2" = 40 psi 8 5/8" = 30 psi Saddle = 28 psi
FIH w/ bit & tag @ 250', drilled cmt from 250' - 928' and fell out. Circ hole clean, secured well & SDON.

7/16/10 Tbg = 105 psi 5 1/2" = 110 psi 8 5/8" = 110 psi Saddle = 100 psi
TIH & tag next cement plug @ 1163'. Drilled cmt to 1474' & fell out = 301'. Lowered bit to 1516' & circulated hole clean. TIH w/ bit to top of Glorieta plug @ 2920'. Circulated hole clean from bottom with 70 bbls FW, secured well & SDON.

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Plugging Operations Summary

7/17/10 Tbg = 0 psi 5 1/2" = 0 psi 8 5/8" = 60 psi Saddle = 40 psi
POH & LD DC's. TIH w/ 4 3/4" bit & 5 1/2" csg scraper to tag @ 2916'. Set bit @ 2907', circulated hole clean w/ 100 bbls FW, POH & LD B&S. RU Schlumberger SLU w/ lubricator & ran fiber optic line w/ GR / CCL / Temp tool. Tagged @ 2895' and left line hanging w/ bottom of tools @ 2890' for stabilization period. Shut well in at 1345 MDT on 7/17/2010.

7/18/10 SI over Sunday for temp & press stabilization. Well being monitored by Total Safety.

7/19/10 5 1/2" = 0 psi 8 5/8" = 48 psi Saddle = 18 psi
Check SLU lubricator, slight leak in packoff - pumped to 1700 psi & stopped leak. Press began building after packing-off line, monitor 4 hours - 5 1/2" = 6 psi, 8 5/8" = 43 psi Saddle = 9 psi. Bled all three pressures at same time - 0 psi in less than 10 seconds. Left well open 1 hour and check Sensalog data. RU kill truck to 5 1/2" and verified that casing remains full of fluid. SWI @ 2:15 PM - monitored by Total Safety and Schlumberger SLU Sensalog remains in well.

Schlumberger's onsite engineer (Yosmar Gonzalez) preliminary data interpretation indicates possible source is at approx 400'.

7/20/10 5 1/2" = 0 psi 8 5/8" = 10 psi Saddle = 0 psi
Bled all outlets, 0 psi in 5 seconds. Monitored 1 hour with Sensalog in hole and transmitted data to SLB engineer in Midland. Pressured 5 1/2" casing to 500 psi and monitored for 30 minutes, press fell to 110 psi. Released pressure to 0, monitored one hour and transmitted data to SLB engineer. POH w/ line & tools, RD SLU. SION.

7/21/10 5 1/2" = 142 psi 8 5/8" = 40 psi Saddle = 90 psi
Operations shut down during BP's safety stand-down.

7/22/10 5 1/2" = 170 psi 8 5/8" = 100 psi Saddle = 105 psi
Bled pressures to 0 psi, took 4 seconds. Schlumberger ran GR-N log 2903' - surface & made two runs with USIT cement evaluation tools form 2900' - surface, first run with 0 psi WB pressure and second w/ 500 psi. Shut in for log evaluation and the BP stand-down on 7/23/10.

7/23/10 5 1/2" = 126 psi 8 5/8" = 36 psi Saddle = 18 psi (7:30 AM readings)
5 1/2" = 150 psi 8 5/8" = 83 psi Saddle = 35 psi (5:00 PM readings)
Safety Stand-down in Midland.

7/24/10 SI - Saturday
7/25/10 SI - Sunday

7/26/10 5 1/2" = 180 psi 8 5/8" = 115 psi Saddle = 150psi
RU Schlumberger SLU to re-run Sensalog. Charged lubricator with nitrogen to prevent pressure leak off until tools RIH to btm. Ran Sensalog optic fiber line, monitor for 45 min w/ line in hole and then released pressures simultaneously (took about 15 seconds to bleed to 0 psi). Monitored 30 minutes after pressure released and then POH. RD Schlumberger and information sent to SLB engineer for analysis. Ran test plug & re-tested BOP & flowback lines, all OK.

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Plugging Operations Summary

7/27/10 5 1/2" = 142 psi 8 5/8" = 142 psi Saddle = 142 psi
Schlumberger engineer in Venezuela - still no analysis but preliminary review by local SLB reps indicate not much new information. Midland Wells Team met with SLB cased hole log analysts and Liberty Rentals fisherman, Bill Parker, to review USIT and discuss options. Decided to run packer and start testing for point of influx into the 5 1/2". First test is at the surface casing shoe and perfs @ 763'. Ran pkr to 696' & set. Load the hoe entirely and SI for pressure build-up monitoring. In 3 hrs, had the following press:
Tbg = 0 psi 5 1/2" x 2 7/8" = 110 psi 8 5/8" = 0 psi Saddle = 10 psi. SION.

7/28/10 Tbg = 0 psi 5 1/2" x 2 7/8" = 142 psi 8 5/8" = 107 psi Saddle = 90 psi.
Bled pressures to containment. Rel pkr from 696', moved to 508' and reset. Loaded hole and installed gauges to monitor pressures and **determine if perfs @ 538' are leaking**.
Press build-up from 8:30 AM to 4:30 PM =
Tbg = 0 psi 5 1/2" x 2 7/8" = 105 psi 8 5/8" = 65 psi Saddle = 82 psi.

7/29/10 Tbg = 0 psi 5 1/2" x 2 7/8" = 142 psi 8 5/8" = 130 psi Saddle = 130 psi.
Bled pressures to containment. Rel pkr from 508' & **reset @ 292' to test perfs @ 357'**.
Press build-up from 8:30 AM to 4:30 PM =
Tbg = 0 psi 5 1/2" x 2 7/8" = 125 psi 8 5/8" = 45 psi Saddle = 75 psi.

7/30/10 Tbg = 0 psi 5 1/2" x 2 7/8" = 150 psi 8 5/8" = 135 psi Saddle = 135 psi.
Bled pressures to containment. Rel pkr from 292' & **reset @ 75' to test perfs @ 100'**.
Press build-up from 8:30 AM to 3:00 PM =
Tbg = 0 psi 5 1/2" x 2 7/8" = 100 psi 8 5/8" = 180 psi Saddle = 18 psi.

7/31/10 SI over weekend
8/1/10 SI over weekend

8/2/10 Tbg = 0 psi 5 1/2" x 2 7/8" = 198 psi 8 5/8" = 171 psi Saddle = 182 psi.
Bled pressures to containment. Rel pkr from 75' & **reset @ 35' to test perfs @ 43' - 58' & 63' (these perfs had not been cemented).** Pressures @ 4:00 PM = 6.5 hrs:
Tbg = 129 psi 5 1/2" x 2 7/8" = 52 psi 8 5/8" = 63 psi Saddle = 93 psi.

8/3/10 Tbg = 140 psi 5 1/2" x 2 7/8" = 120 psi 8 5/8" = 120 psi Saddle = 90 psi.
Bled pressures to containment. Rel pkr from 35' & **reset @ 14'.** After 5 1/2 hrs:
Tbg = 100 psi 5 1/2" x 2 7/8" = 65 psi 8 5/8" = 55 psi Saddle = 65 psi.
Released pressures to containment, rel pkr & POH. TIH w/ tbg to top of Glorieta plug at 2920', LD 1 jt to 2909'. SION.

8/4/10 Tbg = 50 psi 5 1/2" x 2 7/8" = 40 psi 8 5/8" = 40 psi Saddle = 40 psi.
Circ'd hole with 65 bbls 9.5 ppg - 45 sec mud, LD tbg to 1464' & Halliburton spotted 25 sx Class "C" (14.2 ppg, 1.32 yield) from 1464' - 1217' across top of Queen @ 1320'. LD tbg to 846', reversed 10 bbls & recovered 1 1/2 bbls cmt. Attempted to spot shoe plug but Halliburton could not properly mix, displaced cmt to containment, washed up & SDON.

8/5/10 Tbg = 80 psi 5 1/2" x 2 7/8" = 80 psi 8 5/8" = 78 psi Saddle = 78 psi.
Bled pressures. Halliburton spotted 25 sx Class "C" (14.2 ppg, 1.32 yield) @ 846' - 598', pulled tbg to 535', reversed out 1 1/2 bbls cmt and then pulled to 410' to WOC. WIH to tag after 2 1/2 hrs WOC, did not tag anything to 846', circulated out 5 1/2 bbls contaminated cmt. Halliburton re-spotted 25 sx Class "C" w/ 2% $CaCl_2$ (14.2 ppg, 1.32 yield) from 846' - 598', pulled to 535 and reversed out with 20 bbls 10# BW, no cmt. POH to 410' & WOC overnight.

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Plugging Operations Summary

8/6/10 Tbg = 27 psi 5 1/2" x 2 7/8" = 30 psi 8 5/8" = 57 psi Saddle = 80 psi.
TIH & tag top of plug @ 653', plug set from 653' - 846' across 8 5/8" shoe @ 750'. RU flowback lines to pit from 8 5/8" & saddle outlets, RU Apollo and perfed Yates from 521' - 531', second gun failed to fire. POH & ran new gun and perfed Yates 501' - 511'. (these intervals were identified from OH logs of a nearby offset that indicated these could be gas bearing and likely sources of the pressure to surface). RD Apollo. WIH w/ pkr & set at 456', broke down perfs 501' - 531' overall & established pump-in rate of 2.5 BPM @ 850 psi, ISIP = 320 psi. Installed gauges at all outlets & SION.

8/7/10 Tbg = 160 psi 5 1/2" x 2 7/8" = 70 psi 8 5/8" = 70 psi Saddle = 57 psi.
Released pressures, released pkr & POH. RU Monahans NU Service & tested BOP to 250 & 1000 psi, OK. TIH w/ pkr & set @ 456'. SION.

8/8/10 Tbg = 120 psi 5 1/2" x 2 7/8" = 20 psi 8 5/8" = 16 psi Saddle = 0 psi.
RU Halliburton, released pkr & POH. TIH w/ 5 1/2" composite cement retainer & set @ 455' - established pump in rate w/ 2.0 BPM @ 800 psi. Squeezed perf 501' - 531' overall w/ 250 sx Class "C" w/ 10 pps cal seal & 2% $CaCl_2$ (14.7 ppg, 1.48 yield) at 2.0 BPM & 675 psi. Final standing squeeze pressure = 350 psi. Closed retainer & dumped 18' of cmt onto top of CR. Reversed out w/ 20 bbls water & recovered 1/2 bbl cmt. POH w/ setting tool & SION.

8/9/10 Tbg = N/A psi 5 1/2" = 40 psi 8 5/8" = 45 psi Saddle = 31 psi.
TIH w/ tbg & tagged cmt @ 433'. POH w/ tbg & monitored press build-up 5 hours, 5 1/2" = 45 psi 8 5/8" = 14 psi Saddle = 11 psi. Bled pressures & SION.

8/10/10 Tbg = N/A psi 5 1/2" = 35 psi 8 5/8" = 35 psi Saddle = 30 psi.
Released all pressures, monitored all day - no flow observed. SION.

8/11/10 Tbg = N/A psi 5 1/2" = 35 psi 8 5/8" = 27 psi Saddle = 22 psi.
Released all pressures, monitored for flow all day - none observed. Waiting on plan forward.

8/12/10 Tbg = N/A psi 5 1/2" = 35 psi 8 5/8" = 27 psi Saddle = 22 psi.
Decision made to cut 5 1/2" casing, washover & remove from hole to allow setting a plug across the 8 5/8" ID. Released all pressures, TIH with 5 1/2" mechanical cutter, displaced hole with freshwater and cut csg @ 405', 295', 195', 96' & 3' below slips. POH w/ cutter, SWI and monitored for 4 1/2 hrs, no pressure build-up after making cuts. SION.

8/13/10 Tbg = N/A psi 5 1/2" = slight vac 8 5/8" = slight vac Saddle = 2 psi.
Bled pressure, loaded hole with 0.10 bbl water. Installed gauges & SI over weekend to check for build-up.

8/14/10 SDOWE.
8/15/10 SDOWE.

8/16/10 Tbg = N/A psi 5 1/2" = 9 psi 8 5/8" = 2 psi Saddle = 1 psi.
Bled pressures. ND BOPE. PU 5 1/2" spear to remove slips, engaged 5 1/2" but could not free w/ 90K#. LD spear, ran cutter & re-cut 5 1/2" @ 1.80' below casing stub. Spear csg & worked free with 65K pull, recovered slips & 3.4' of csg. NU 11" - 3000 psi BOP & tested to 250 & 1000 psi, OK.

Empire Abo Unit "F" #335

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Plugging Operations Summary

8/17/10 5 1/2" = 0 psi 8 5/8" = not reported Saddle = 2 psi.
TIH w/ 7 7/8" KutRite shoe and 7 3/8" OD WP. RU power swivel, wash over 5 1/2" from 15' - 43' RKB. Circ clean, POH & changed shoe. SDON.

8/18/10 No pressure reports.
TIH, tag @ 43', washover to 51' (8') shoe quit cutting, circ clean. Static line broke while backing out washpipe, no injuries - clear by design. SION

8/19/10 No pressure reports.
Conducted incident investigation. PU spear, speared 5 1/2" csg & pulled 50K to insure grapple holding OK. Removed spear & SDON.

8/20/10 No pressure reports.
Completed permits & set two anchors to stabilize BOP / WH. Key recommended repairs to properly attach the power swivel torque line. RD PU. Certified welder started repairs. SION.

8/21/10 No pressure reports.
Finish repairs, install static line, inspected repairs and RU PU. Re-installed stand pipe & SION.

8/22/10 SD on Sunday.

8/23/10 No pressure on 8 5/8" or saddle outlets.
TIH w/ shoe & WP, washover 51' - 63' (12'), POH - shoe worn out. SION.

8/24/10 No pressure reports.
No operations due to failure of KEY VIEW, repaired & SION.

8/25/10 No pressure reports.
TIH w/ new shoe, tag @ 63', washover to 74' (11') and shoe quit. POH, shoe worn w/ slight groove on inside face of shoe. Performed BOP drill. SION.

8/26/10 5 1/2" on slight vac.
TIH w/ new shoe, washover 74' - 79' (5'), shoe quit. POH - shoe badly worn - suspect junk around pipe. PU spear and engage 5 1/2" - POH w/ 14.44' piece, collar & 1 full jt 42.58'. SION.

8/27/10 No pressure reports.
Installed 11" - 3000 psi Mueller Stripper Head. Ran 7 7/8" concave mill on 3 - 4 1/8" DCS loaded hole w 1.7 bbls - well on slight vac. Milled 5 1/2" csg from 70' - 74.5', circ hole clean, ND stripper head and loaded hole w/ 1.5 BW. SI & secured well, SD over weekend.

8/28/10 SDOWE
8/29/10 SDOWE

8/30/10 No pressure reports.
Load hole w/ 1 BW. Set plug in WH to test BOPE, rams leaking. No replacement available - ND BOP & sent to shop for repairs. NU flange & gate valve, tested connection to 120 psi & SI awaiting return of BOP.

Empire Abo Unit "F" #335
API No. 30 - 015 - 22767

Plugging Operations Summary

8/31/10 Well on slight vacuum.
WO return of equipment from Odessa shop - arrive too late to install. SION.

9/1/10 Well on slight vacuum.
NU & tested BOP to 250 & 1000 psi, OK. Tested flowback lines to 250 & 1000 psi, OK. Ran 7 7/8" concave mill, tagged at 74.5' & milled 5 1/2" csg to 76' in 1 1/2 hrs. Circ'd clean, LD 1 jt of tbg and secured well. SDON.

9/2/10 Well on stronger vacuum this morning.
TIH w/ 7 7/8" concave mill on 3 - 4 1-8" DC's, tagged at 76'. Milled 2' in 2 hours to 78', milled 1' in 2 hrs to 79' and then milled 1 hr w/ no progress. POH - mill was worn out with one pad missing. TIH w/ 7 7/8" x 6 3/8" KUTRITE shoe on 1 jt 7 3/8" was pipe & 2 4 1/8" DC's. Tagged @ 79', washed over for 2 1/2 hrs and mode 1' - apparently have something rolling under the shoe. Circ'd clean w/ 15 BFW & SDON.

9/3/10 Well on stronger vac than on 9/2/10 (discussed status w/ Phil Hawkins w/ NMOCD)
Resumed washover, tagged @ 80', little progress first two hours, debris under shoe and on between washpipe & 5 1/2". SD for lunch, made safety check of power swivel, stiff arm, static line & clevises, all appeared to be OK. Resumed washover, made 6" in 1/2 hour to 82' and stiff arm to static line came loose and fell to rig - SD operations. Gathered dropped objects and information for incident investigation. POH w/ all tools & installed 11" - 3K adapter flange with gate valve. Secured well with blind rams closed and gate valve with tapped bull plug & gauge. SD over Labor Day weekend.

9/4/10 SD - Saturday
9/5/10 SD - Sunday
9/6/10 SD - Labor Day

9/7/10 Well on slight vacuum.
Held hazard hunt and checked all clevises, reinstalled 3 properly on retention lines, replaced clevis on stiff arm with 3/4" OD pin and cotter pin. TIH w/ washover assembly, tagged @ 82', washed over to 98' in 5 1/2 hrs = 16 ' @ 2.9 FPH. Circ'd clean, PU off bottom & closed annular. SDON.

9/8/10 Well on slight vacuum.
Resumed washover from 98' - 103', shoe quit cutting. Circ clean & POH - shoe was worn out. TIH w/ 7 3/8" grapple on 1 jt of 7 3/8" washpipe (suspect junk inside casing so spear couldn't be ran). Caught fish & POH, recovered 17.15' of 5 1/2" casing - not cut as badly as previous recovery. Ran new 7 7/8" x 6 3/8" shoe on 1 jt washpipe, washed over 103' - 104' in 1/2 hr, circ hole clean, PU off btm & SDON.

9/11/10 Slight blow on wellbore - may be trapped air.
Resumed washover operations, made 1/2' in 5 hrs, POH w/ shoe - worn out apparently running on junk. Ran new KUTRITE shoe, washed over 104.5' - 107' in 2 hrs, circ clean, PU off btm & SDON.

9/12/10 Well on slight vacuum.
Loaded hole w/ 0.7 bbl, established circ & washover 5 1/2" csg from 107' - 110.5', shoe stopped cutting, appeared to be spinning on junk - casing collar should be at approx 110'. POH, shoe worn down to water courses. WIH w/ shoe #10 on 1 jt WP, washover at 110.5' for two hours but no progress, circ hole clean and SDON. Hole took 9 - 10 bbls fluid today.

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Plugging Operations Summary

9/13/10 Well on slight vacuum.
Continued attempt to washover at 110.5' for 2 hrs w/ no progress. POH. Ran 7 3/8" OS w/ 5 1/2" grapple - swallow fish to 105', POH & recovered 14.15' piece of 5 1/2" csg. TIH w/ 7 7/8" concave mill #3, tag @ 110' & milled to 113' in 2 1/2 hrs, circ clean & SDON. Hole took approx 8 BF today.

9/14/10 Well on slight vacuum.
POH w/ concave mill. Ran washover BHA, tagged @ 113', washed over to 132' in 6 1/2 hours, circ clean & SDON.

9/15/10 Well on slight vacuum.
POH w/ shoe & tested BOPE to 250 & 1000 psi, OK. Re-ran washover BHA, tag @ 132' and washed to 136' in 2 1/2 hrs, getting back cement w/ small amount of iron in returns. SDON.

9/16/10 Well on slight vacuum.
Resumed operations, washed over from 136' to 148' in 8 1/2 hrs. Circ clean & SDON.

9/17/10 Well on slight vacuum.
Resumed washing over from 148' to 151', shoe quit cutting. Circ clean & POH, shoe #12 completely worn out. Ran shoe #13, washed over 151' - 153' in 3 1/2 hrs.

9/20/10 Well on slight vacuum.
Resumed washover but made only 2" in 1 hr. POH, shoe #13 worn out. TIH w/ OS w/ 5 1/2" grapple, swallowed fish to 149' & POH, recovered 38.80' of 5 1/2" csg. TIH w/ 7 7/8" Concave mill, milled 152' - 156.5' in 3 hours. POH w/ mill. Re-ran washover BHA. SDON.

9/21/10 Well on slight vacuum.
Loaded hole w/ 1 1/2 bbls & broke circ. Reverse circ w/ 2 1/4 BPM @ 80 psi. Washed over 156.5' - 166.5' in 8.5 hrs, cement & metal in returns. Circ clean & SDON.

9/22/10 Well on slight vacuum.
Loaded hole w/ 1 1/2 bbls & broke circ. Reverse circ w/ 2 1/2 BPM @ 100 psi. Washed over 166.5' - 173' (6.5' in 8.5 hrs). PU, circ clean & SDON. Lost 23 BW while circ today.

9/23/10 Well on slight vacuum, checked for LEL & H_2S, none present.
POH w/ shoe, not worn out. TIH w/ shoe #15 & washover assembly. Hole took 1.2 bbls to load & establish circ. Cut over 5 1/2" csg from 173' - 180' in 7 1/2 hrs. Circ clean & SDON.

9/24/10 Well on slight vacuum.
BOP accumulator would not build pressure - WO Weatherford to make repairs - made repairs & SD for weekend.

9/27/10 Well on slight vacuum.
Resumed operations - took 3 BW to load and initiate circulation at 2.5 BPM & 100 psi. Reverse circ & attempt to wash over casing - torquing and stalling @ 174', unable to make progress - previous wash over depth was 180'. POH w/ shoe and found 24' of casing, approx 1/2 of body cut away and twisted / bound in wash pipe. WIH w/ 7 7/8" concave mill, tagged @ 180' and milled to 184' in 3 1/2 hrs. Lost 11 BW to hole today. SDON.

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Plugging Operations Summary

9/28/10 Well on slight vacuum.
Resumed operations - took 2 BW to load and initiate circulation at 3.25 BPM & 140 psi. Milled 2 1/2 hrs 184' - 185', progress ceased. POH and ran #6 concave mill. Milled to 191.5' in 5 1/2 hrs. Circ clean & SDON. Lost 8 BW to hole to day.

9/29/10 Well on slight vacuum.
POH w/ mill #6 to test BOP. Installed test plug and BOP tested to 250 psi & 1000 psi, OK. TIH w/ 7 7/8" concave mill #7, took 1 BW to load hole & establish circ. Milled 5 1/2" casing from 191.50' - 196' in 5 1/2 hrs, mill stopped cutting. Circ hole clean & SDON. Lost 10 BW to hole today.

9/30/10 Well on slight vacuum.
POH w/ mill. TIH w/ Halliburton tension pkr on 2 7/8" tb & set @ 176' w/ 15K tension. Loaded 8 5/8" x 2 7/8" annulus (2 BW to fill) - left open & monitored for communication. RU pump truck & attempted to establish injection below pkr - immediately pressured to the max pressure limit of 1000 psi (pressured up while pumping @ 0.38 BPM. Press bled to 250 psi in 3 minutes. Re-pressured to 1000 psi with same results, also bled to 250 psi in 3 minutes. RU swabbed and swabbed tubing to 176' in 3 runs, check for fluid level - remained "dry" - no flow. SI and monitored 3 hrs, 8 5/8" x 2 7/8" remained on slight vac nor pressure built on tubing (30 psi gauge in place). SDON.

10/1/10 16.5 hr SITP = 0 psi. 8 5/8" x 2 7/8" remained on slight and took 0.7 BW to fill. Opened tbg to opened topped tank & monitored 3 hrs - no flow or vacuum - remained static. SI tbg and monitored 3 hrs, no pressure buildup. Left well closed in for weekend.

10/2/10 SI for Weekend.
10/3/10 SI for Weekend.

10/4/10 SITP = 0 psi. 8 5/8" x 2 7/8" annulus remains on slight vacuum.
Filled annulus - took 0.7 BW. Filled tubing, took 0.6 BW. Released pkr & POH. LD the 6 - 4 1/8" DC's. TIH w/ 2 3/8" mule shoed sub on 2 7/8" tbg, tagged 5 1/2" stub @ 196', rotate and fell inside 5 1/2". FIH & tagged bottom @ 414' = 19' above cement previously tagged at 433' after squeezing Yates - suspect junk and cement from milling & washover operations have fallen inside pipe. NM Mueller stripper head & installed 2 7/8" stripper. Broke circ and attempted to was to bottom - pumped 100 BW @ 5 .5 BPM & 300 psi but made no progress. Pulled sub, landed EOT @ 413', secured well & SDON.

10/5/10 SITP = 0 psi. 8 5/8" x 2 7/8" annulus remains on slight vacuum (tbg is open-ended)
Wait on arrival of Halliburton - arrived at 2:30 PM but crew had too many hours without rest, job postponed until 10/6/10. RU HES and tested lines & equipment to 250 psi & 2000 psi prior to securing well and SDON.

10/6/10 No SI pressures reported on today.
Resume operations with Halliburton. Tested lines & equipment to 250 & 2000 psi. With EOT @ 414', established circulation to surface via the 8 5/8" x 2 7/8" annulus and the riser to the 8 5/8" saddle, 3 BPM @ 80 psi. Mixed and pumped Class "C" cement cont'g 5 pps Mircobond + 1% $CaCl_2$ at 14.6 ppg = 1.45 yield (7.041 gals / sk mix water). Had initial cement returns to surface at approx 66 sx and cont'd pumping until good slurry reached surface = total of 80 sx. POH & LD all tbg, Halliburton filled 8 5/8" csg to top w/ approx 5 sx cmt and pressured to 250 psi - held OK. Released pressure, washed out pump, lines and BOP stack. RD Halliburton. ND BOP & installed security flange with valve and 30 psi gauge. SDON.

Empire Abo Unit "F" #335

API No. 30 - 015 - 22767

Plugging Operations Summary

10/7/10	SIP = slight vacuum - bled to static in 10 seconds. Check riser from 8 5/8" saddle @ 29' - remains full of cement. Removed bull plug from wellhead cap, ran gauge line & tagged cement top @ 9' below GL. Kent Whitmire called Phil Hawkins with NMOCD and received approval to cut-off wellheads and complete the abandonment (also said that TOC at 9' below GL was OK). RD & MO equipment, cleaned locations and shut down over weekend.
10/8/10	Check SIP = slight vac, bled to static in 3 seconds. Left open to monitor during day and then SI over weekend.
10/9/10	Check SIP = static.
10/10/10	Sunday - did not check well.
10/11/10	SIP = very slight vacuum, suspect temperature affect. Left valve open and monitored for 30 minutes and then shut-in for 3 hours and re-checked - no pressure & wellbore static. Checked for LEL - none. Excavated WH to 4', cut off casings and WH to 4' below GL & installed regulation dry hole marker. The plate welded to the surface casing has a 1" valve installed and the riser from the saddle at 29' RKB was cut 4' below GL and a tapped bull plug and needle valve were installed. Backfilled WH area and cleaned location. Downhole P&A operations completed 10/11/10.