					10.00 mm	
Form 3160- 5	UNITE	D STATES		1	FORM APPROVED	
(April 2004)	DEPARTMENT	OF THE INTERIOR			OMB No. 1004- 0137	
	BURFALLOFIA	ND MANAGEMENT		VEL	Expires: March 31, 2007	
	DOIGHO OF LA			5. Lease Serial 1	No.	
st	JNDRY NOTICES AN	ND REPORTS ON W	_{/ELE} UL 03 2	Jica	rilla Contract 102	
Do	not use this form for pro	posals to drill or to re-	enter an con Fiel	6. Alf Indian, Allo	ottee, or Tribe Name	
abar	Idoned well. Use Form 3	160-3 (APD) for such pr	oposals	natiomeni		
SUBMIT IN T	RIPLICATE - Other Ins	tructions on reverse s	ide.	7. If Unit or CA.	Agreement Name and/or No.	
1 Type of Well				-		
Oil Well X Gas Well	Other		CT 2	8. Well Name ar	nd No.	
		OIL CONS. DIV DI	51.5	Jicarilla Apache 102 #14M		
2. Name of Operator	· ·		A		1	
EnerVest Operating,	LLC	JUL 08 201		9. API Well No.		
3a. Address 1001	Fannin St, Suite 800	3b. Phone No. (inclu	ude area code)	30-039-31193		
Hous	ston, TX 77002-6707	713-659-3500	<u>); 713-970-1847</u>	10. Field and Po	ol, or Exploratory Area	
4. Location of wen (Poolage, Sec., 7 SHL • 131	(1) FSI & 1A82' FWI	(III N) Sec. 0 T26N		LL County or Pa	rish State	
BHL: 66	0' FSL & 1980' FWL	(UL N) Sec. 9, T26N	, R04W		tio Arriba NM	
12 CHECK APPRO	PRIATE BOY(S) TO INT	UCATE NATURE OF N	INTICE DEDODT		λτλ	
TIZ: CHECK ATTRO			TOTICE, KEI OKI,			
TYPE OF SUBMISSION		T	PE OF ACTION			
X Notice of Intent	Acidize	Deepen	Production (St	tart/ Resume)	Water Shut-off	
29 -	Altering Casing	Fracture Treat	Reclamation		Well Integrity	
Subsequent Report	Casing Repair	New Construction	Recomplete		X Other	
BP	Change Plans	Plug and abandon	Temporarily Al	bandon	Remedial Cement	
Final Abandonment Notice	Convert to Injection	Plug back	Water Disposa	1	Recommendation	
'13. Describe Proposed or Completed C If the proposal is to deepen direction Attach the Bond under which the w	Deration (clearly state all pertiner onally or recomplete horizontally, york will performed or provide the	nt details including estimated sta give subsurface locations and m Bond No. on file with the BLM	rting date of any propose leasured and true vertical I/ BIA. Required subsequ	ed work and approx depths or pertinent ient reports shall be	imate duration thereof. markers and sands. e filed within 30 days	

following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notice shall be filed only after all requirements, including reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

The Jicarilla Apache 102 # 14M was TD'ed 4-20-2014, casing was run and cemented on 4-21-2014. Due to the severe mud losses experienced while drilling the well the decision was made to cement 1 stage of cement in the hopes to bring the cement over the Dakota and Mesa Verde but it was feared that there may be severe cement losses. If the initial cement TOC was adequate for completion, the well would be completed and remedial cement work was to be done post-completion. The TOC was found to be @ 4890', this was adequate for the Dakota and Mesa Verde completions. The well was completed. The NMOCD has now requested that the remedial cement work be done.

CONSECUTION OF APPROVENCE and wellbore schematic.

BLMPS APPEROVAL OR ACCEPTANCE OF THIS ACTION BODES NOT RELIEVE THE LESSEE AND OFFELATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct.						
Name (Printed/ Typed)	Title					
Jeanie McMillan	The		Sr. Regulator	y Ana	lyst	
Signature Apance McMillan	Date		July 2, 2	2014		
// THIS SPACE FOR FED	ERAL O	R STATE OFFIC	EUSE			
Approved by William Tambekou	Title	Petroleum	Engineer	Date	7/3/2014	
Conditions of approval, if any are attached. Approval of this notice does not warra certify that the applicant holds legal or equitable title to those rights in the subject which would entitle the applicant to conduct operations the	ant or lease Office ereon.	FFD				
Title 18 U.S.C. Section 1001 AND Title 43 U.S.C. Section 1212, make it a crin States any false, fictitiousor fraudulent statements or representations as to any matter with	me for any thin its jurisc	person knowingly and liction.	willfully to make an	ny departr	ment or agency of the U	Jnited
(Instructions on page 2)		UCTIONS				6
This form is designed for submitting proposals to perform certain well	· f	orm and the number of	copies to be submitted,	, particula	rly with regard to	Ð

Adhere to previously issued stipulations



Jicarilla Apache 102 # 14M

Remedial Cement Procedure San Juan Basin Rio Arriba County, New Mexico

OBJECTIVE

Cement 4 $\frac{1}{2}$ " casing from current TOC @ 4890' to surface.

WELL DATA

API: BOLO:	30-039-31193 54012.023
Elevation: KB:	7112' 7125'
PBTD:	8459' (FC) MD
Surface Casing:	8 ⁵ / ₈ "" 24#, J-55, ST&C set @ 523' Cemented to surface.
Production Casing:	4 ¹ / ₂ " 11.6# N-80 LT&C Capacity: 0.0155 bbl/ft Burst: 7780 psi (80% Burst-6224 psi) Collapse: 6350 psi
$7^{7}/_{8}$ " hole x 4 $\frac{1}{2}$ " casing annu	llus: Capacity: 0.0406 bbl/ft, (24.6474 ft/bbl)
Production tubing:	2 ³ / ₈ " 4.7# J-55 Capacity: 0.00387 bbl/ft Burst: 7700 psi (80% Burst 6160 psi) Collapse: 8100 psi
BHT:	~165° F (Dakota) ~155° F (Mesa Verde)
BHP:	~1422 psi (3.43 ppg MWE @ 7974' TVD)

Recommended Procedure:

- 1. MIRU completion rig.
- 2. MI 400 bbl frac tank for <u>cement water</u>. Fill with 400 bbl FRESH water from <u>TnT water well</u>.
- 3. Have 1 water truck available with 2% KCl water for kill water only.
- 4. MI return tanks (1/2 tank) for mud and cement returns. <u>Have enough volume to</u> hold up to 300 bbls.
- 5. Kill well as needed with 2% KCl water.
- 6. ND WH, NU 3K BOP.
- 7. Pressure test BOP as required by BLM
- 8. TOOH with $2^{3}/_{8}$ " production string. Stand back for re-run.
- 9. Have the following cement available on site:
 - a. 700 sx Premium Lite FM + 2% BWOC CaCl2+ 8% BWOC gel + 0.4% BWOC SMS + 0.4% BWOC FL-52A + 2 pps LCM. To be pumped @ 12.1 ppg, 2.13 yld.
 - b. 200 sx Type III neat to be pumped @ 14.6 ppg, 1.39 yld.
- 10. Install WL adapter for lubricator.
- 11. RIH with Basin Logging WL and set composite bridge plug. @ +/- 5000'
- 12. Pressure test CBP to 2000 psi with rig pump using fresh water.
- 13. RIH with perforating gun and CCL in lubricator. Perforate 2 0.50" squeeze holes @ 4750'. Shoot in the middle of the casing joint.
- 14. POOH with WL.
- 15. RD WL, but keep on site for more perforating if needed.
- 16. Have 2 water trucks available to pump out the return tank, (have sugar available for cement returns)
- 17. Rig up cement pump to casing valve. Rig up with squeeze manifold so as to allow reverse circulation of tubing after the cement placement.
- 18. Open 8 $\frac{5}{8}$ x 4 $\frac{1}{2}$ annulus to return tank.
- 19. Pump fresh water down casing. Monitor returns, record rate and pressure.
- 20. If returns are determined adequate (at least 2 4 bpm and less than 2000 psi), SD and prepare to pump cement.
- 21. (if step # 20 was satisfactory) TIH with 2 $\frac{3}{8}$ " tbg and 4 $\frac{1}{2}$ " cement retainer. Set retainer @ 4700'.
- 22. Pump cement as follows:
 - a. Pump 700 sx Premium Lite cement mixed @ 12.1 ppg.
 - i. If cement returns are seen at surface before all 700 sx is pumped switch to Type III cement and pump 25 sx @ 1.46 ppg, 1.39 yld.
 - ii. If cement returns are not seen after the 700 sx of 12.1 ppg cement has been pumped, switch to Type III cement and pump until cement returns are seen at surface.
 - iii. If circulation is lost at any time, switch to Type III cement and pump 50 sx @ 14.6 ppg, 1.39 yld.
 - b. Displace cement with 17 bbl fresh water.
 - c. SD pumping.

23. Sting out of cement retainer. Take off cement line from tubing.

- 24. Pull up 1 jt.
- 25. Rig up to reverse circulate.
- 26. Reverse circulate with fresh water to return tank(s) until tbg is clear.
- 27. Pull up 10 stands. SD and WOC at least overnight.

- 28. Release cement equipment.
- 29. Haul cement and mud returns to disposal.
- 30. MU BHA for drillout operations
 - JZ sealed journal bearing rock bit for 4 ¹/₂" 11.6# N-80 csg
 - Bit Sub
 - Float Sub
 - $3^{1}/_{8}$ " drill collars (6).
- 31. TIH to drillout cement and cement retainer.
- 32. Drillout though the cement, past the squeeze holes.
- 33. MIRU WL. Run CBL, CCL log from CBP to surface. Note TOC.
- 34. Perform "unofficial" MIT test of 65 psi, monitor for 30 minutes. Notify Loren Diede with results. (505)-334-8867
- 35. Notify NMOCD and Jicarilla BLM to witness MIT test.
- 36. Pump official MIT test with NMOCD and BLM to witness.
- 37. If test is successful, proceed to next step.
- 38. MIRU N2 unit.
- 39. TIH with drillout BHA and $3^{1}/_{8}$ " DC.
- 40. TIH and unload water with N2.
- 41. Tag the CBP @ 5000'.
- 42. Drill out the CBP with N2.
- 43. Cleanout to PBTD.
- 44. Tag for fill and clean out any fill.
- 45. TOOH. Stand back to re-run as production string.
- 46. If no further work is to be done on this well, run the $2^{3}/_{8}$ " production configured as per production engineer.
- 47. RDMO completion rig.

CONTACT INFORMATION:

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Steve Knowles – Director of Completions	281-703-9912 (c)
	713-495-6554 (o)
Loren Diede – Engineering Consultant	505-334-8867 (c)
Porter Smith – Completions Consultant	505-320-9585 (c)
Josh Caldwell – Production Manager	713-495-5344 (o)
Mickey Ahrens Production Superintendent	505-325-0318 (o)
Ryan Lohse – Production Engineer	713-495-6538 (o)

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TYPE Dakota/MV	RIG	TBD		<u>`</u>	•	DATE 2 lui	1-2014
FIELD Tapicito	COUNTY	Rio Arriba				ELEVATION GL= 7112	, KB= 7125'
GAS/OIL Gas/Oil	MUD	мир LSND ВНТ/ВНР 175 deg / 1822 psi				/ 1822 psi	
LOCATION SHL; 1310' FSL &	1482' FWL Unit N, Sec 9, T26	N, R4W		SHL; , -107	.26001 W	, 36.49728 N(NAD 27)	
BHL; 606' FSL & 1	958' FWL Unit N, Sec 9, T26N	I, R4W		BHL; -107.	255031 V	V, 36.490831 N,(NAD 27)	
COMMENTS: OBJECTIVE FORM	ATION: Dakota and Mesa Ver	de					• • • • •
NOTES:		1	,,			- <u></u>	
······································			MD/ TVD				
Surface Section	Cemented to Surfa	ce	1				
					Cement	to surface	
	8-5/8", 24#,J-55,ST	&C	523'	-	Water b Drilled T	ased bentonite mud	
Production Section Cerr	ented to Surface with 3 Star			N	i Stat to	dill directionally @ +/ 600' 144 d	og grimuth
Cen	State with a State		• • -		Start 10	uni unectionally (2 +/- 600 144 d	ey azimum
	7 7/8" Hole from 500' to	TD>			• .		·· ·• •• •
					Drilled w	//PDC, motor, 4-1/2" DP	·, ·
	Ujo Ala	mo >	3274		87.001	PPG I SND Bentonite Mud	· .
Production Tubing: 2 3/8" 4	.7# J-55 set @ 8223', SN @ 82	222'>>>>>>>>>>			5.1 5.01		
	Kirtla	nd >	3752				
Jpper M V, Stg5: 5570-5694' 126 0.40" hole	Fruitland Co	pal >	3845'				
Acidize with spearhead of 1000 gal 15% HCI. with 101500 gal 70-60% N2 foam (45654 gal	.⊢rac 20# geł		· · · · · · · · · · · · · · · · · · ·				.]
+ 1443000 scf N2) and 137620# 20/40 mesh 50-60 bpm and 2810 psi.	sand@ Picture Cl	iffs >	3903'				, 1
Aiddle M V Stg 3: 5764-5924, 117 0.40" hole	Lev	vis>	3964'				· · · · ·
viciaize with spearhead of 1000 gal 15% HCl. with 107000 gal 70-60% N2 fo am (42294 gal	20 # gel						
- 1442000 scf N2) and 151920# 20/40 mesh :0-60 bpm and 3192 psi	sand at Chao	sra >	4851'			· · · · · · · ·	
ower M V, Stg3. 6054-6116, 87 0.40" holes.	Acidize	-			• •		
with spearhead of 1000 gal 15% HCI. Frac wi 15500 gal 70-60% N2 foam (43848 gal 20# g	th			<<	Resume	vertical hole @ +/- 4500 ' MD	
260700scf N2) and 118480# 20/40 mesh sa ppm and 3203 psi.	nd at 60				Vertical	Section = +/- 843' SE	
Jpper Dakota, Stg2: 8090-8111 63 0.40" hol	es,						-
cidize with spearhead of 1000 gal 15% HCI. vith 107688 gal 20 ppg XL gel and 139960# 2	Frac	• • • • • • • • • • • • • • • • • • • •					
nesh sand at 41bpm and 3120 psl							
ower Dakota, Stg1 8192-8278.60 0.40" ho	es.				<<<<<	10C 4890	
cidize with spearhead of 1000 gal 15% HCI.	Frac 0/40 Cliffhou	ise >	5568'	+	·		r ·
nesh sand at 40 bpm and 3274 psi.			5450'				· · · · · · · · · · · · · · · · · · ·
	Menef	ee >	5704'				
	Point Look	out >	6053'				. <u>.</u>
· · · · · · · · · · · · · · · · · · ·			5935				
	····						
	Regulatory Man	os	6553	-			
					• •	· · · · · · · · · · · · · · · ·	
			7005		Logs:	Cased Hole Pulsed Neutron (RM	T) & CBL + Gyro
	Greenho		1 990.			to sunace casing	
· · · · · · · · · · · · · · · · · · ·	Graneros Sha	ile >	8055'			1	· · · · · · · · · · · · · · · · · · ·
	Deli-		8077	+	Cement:	Cemented stge 1 only, 1107 cu	ft, (548 sx) Baker
	Dako		7959			riemium Lite no @ 12.5 ppg	· · · · · · · · · · · · · · · · · · ·
	••••••	···					
4-1/2", 11.6#	# , N-80 LT&C - 8503' to Surfa	ce /			FC = 84	59'	
		┥╎┼┥┍╍┽╿┾	8385' TVD	╇┥┥╎┝┥			
			6504 MD	╇╽┽┽┝┤	· · · ·		
				<u> </u>			
AFE # CO 1312 896	REGULATORY	J McMillan	Die 1			713-970-1847	
V # 154012.023		K Irueheart / L	Diede			713-495-1561 / 505-334-8867	1
11# 100-008-01180							1

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