Form	3160-5	
(Septe	mber 2001)

UN ID STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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IJ	Z001	OMB No. 1004-0135 Expires: January 31, 200
5.	Lease S	erial No.

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SUNDF Do not use the abandoned w	this form for proposals to drill or to re-enter an well. Use Form 3160-3 (APD) for such proposals				Jic 459 6. If Indian, Allottee or Tribe Name Jicarilla Apache	
SUBMIT IN TR	RIPLICATE - Other instructi	ions on reverse s	ide 🥎 💮	~	/Agreement, Name and/or No.	
1. Type of Well Oil Well Gas Well	Other	WAR 200		N/A 8. Well Name a	and No.	
2. Name of Operator		ta or		Jicarilla 459		
	t wholly-owned subsidiary of Blac	k Hills Explorati	<u> </u>	9. API Well No.		
3a. Address	3	Bb. Phone No. (include at	rea code) /	30-039-240	87	
350 Indiana St., #400. Golden.	CO 80401	720-210-1300		10. Field and Pool, or Exploratory Area		
4. Location of Well (Footage, Sec.,	T, R., M., or Survey Description)	The Court of the C		Cabresto Canyon: Tertiary 11. County or Parish, State		
1665' FSL and 940' FEL (NESE)	Omt 1			Rio Arriba.	·	
12. CHECK AP	PROPRIATE BOX(ES) TO IN	IDICATE NATURE	OF NOTICE, R			
TYPE OF SUBMISSION			OF ACTION			
Notice of Intent	Acidize Alter Casing Casing Repair	Deepen [Fracture Treat [New Construction [Production (Start Reclamation Recomplete	t/Resume)	Water Shut-Off Well Integrity Other	
Subsequent Report	Change Plans	Plug and Abandon	Temporarily Ab	andon	Other	
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal			
Attach the Bond under which the following completion of the invitesting has been completed. Findetermined that the site is ready	ctionally or recomplete horizontally, give work will be performed or provide olved operations. If the operation resulal Abandonment Notices shall be file for final inspection.) wholly-owned subsidiary of Black	the Bond No. on file wit ilts in a multiple complet d only after all requirem	h BLM/BIA. Require ion or recompletion in ents, including reclar	ed subsequent repon a new interval, a mation, have been o	rts shall be filed within 30 days Form 3160-4 shall be filed once completed, and the operator has	
14. 1 hereby certify that the foregoin Name (PrintedlTyped)	g is true and correct					
Allison Newcomb		Title Engine	eering Technician			
Signature Cllux	n V Jewcomb	Date 3	45/04	/		
	THIS SPACE FOR	FEDERAL OR STA	TE OFFICE USE	y ^{to} lat is kity		
Approved by (Signature)	Hu Sale	Name (Printed	d'Typed))ivision of	Multi-Resources	
Conditions of approval, if any, are certify that the applicant holds lega which would entitle the applicant to c	attached. Approval of this notice doo all or equitable title to those rights in conduct operations thereon.	es not warrant or the subject lease	•		Date 2-17-64	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Jicarilla 459#1 OA Cement Squeeze

Procedure:

- 1) MIRU service unit. RU H2S equipment. Kill well with produced water.
- 2) ND wellhead. NU BOP's.
- 3) Release packer. TOOH with tubing and packer.
- 4) PU and TIH with bit and scraper on 2-3/8" workstring to CIBP at 3,590'. TOOH with bit, scraper, and workstring.
- 5) PU and TIH with packer on workstring. Set packer at approximately 3,000 '.
- RU cement company. Establish injection rate down tubing into Ojo Alamo perforations. Mix and pump 100 sacks Type III cement to squeeze Ojo Alamo perforations. Hesitate as necessary to obtain squeeze.
- 7) After squeeze is obtained release packer and reverse out excess cement. TOOH with packer and workstring.
- TIH with bit, and drill collars on workstring and drill out Ojo Alamo squeeze. Test squeeze to 1000 psig. Circulate wellbore with clean 2% KCl. TOOH with bit and workstring. If squeeze tests, proceed with next step otherwise resqueeze.
- 9) Drill out CIBP at 3,590' and push to bottom. TOOH with workstring.
- 10) RIH with production tubing string. ND BOP's. NU wellhead.
- 11) RU swab. Swab tubing to recover load water and attempt to kick well of flowing.

Jicarilla 459 No. 1 1665' FSL and 940' FEL, Unit I NESE Sec. 18-T030N-R003W Rio Arriba County, NM East Blanco Field GL Elev: 7085' KB Elev: 7098'

(RECOMPLETION) Triple P #7

07/29/2003 3136'-3194' OA

Present Operation: MIRU Triple P rig #7.

MIRU Triple P rig #7. Prepare to squeeze OA perfs & recomplete to

PC.

Day #1 DC:

CC:

07/30/2003 3136'-3194' OA

Present Operation: Laydown 1.9" Tbg & PU 2-3/8" tbg.

Start rig up, rig flare line to pit, flare gas off tubing. Pump 12 barrels 2% KCL water down tubing to kill well. Pick up on tbg & remove tbg donut. Release packer, laydown pup jt NUBOPE, change out pipe rams. TOH & laydown 88 jts 1.9" tubing on trailer to haul in to Tuboscope for inspection. Change over tools to 2-3/8". PU bit & casing scraper TIH with 2-3/8" tubing to 3380', hit hard scale, RU swivel rotated down to 3476'. Pull 5 stands & shut down for night.

Day #2 DC:

CC:

07/31/2003 3136'-3194' OA

Present Operation: Squeeze OA perfs & squeeze hole in csg.

Start rig up. Finish TOH with 2-3/8" tubing, laydown bit & casing scraper. PU packer, make up same and TIH with 2-3/8" tbg. Set packer at 2969 approx. 167' above top perf. Fill backside could not pressure up, sespect hole in casing. RU BJ Services to squeeze OA perfs. Establish injection rate 1 barrel H2O @ 890 psi on tbg. Begin pumping squeeze cement into OA perfs, pump 21 bbls cement, pressure rising to 2600 psi start displacement of tbg volume (12 bbls) pump 8 bbls pressure to 3820, open circulating tool on packer and reverse out 50 bbls. Squeeze hesitate 30 min holding 1000 psi. Pull 10 stands at a time trying to isolate hole in casing, hole determined to be at approx. 167'. Prepare to squeeze hole in casing. Start pumping 5 bbls H2O ahead followed by 12 bbls of cement @ 14.5 ppg, displace with 1.5 bbls H2O. Shut down & shut in.

Day #3 DC.

CC:

08/01/2003 3136'-3194' OA

Present Operation: Drill out cement plugs.

Start rig up. Work on BOPE, blind rams will not open cement in BOP. Change out BOP with BOP from rig #3 of Triple P. Pick up

bit, bit sub & drill collars TIH to tag up cement, tagged cement at 177'. Start up pump and pressure test to 300 psi, held 5 min. Start drilling out cement, drilled 30' dropped thru, hit cement at 237' drilled 42' of cement dropped thru. TIH hit cement at approx 756', drill cement. SDFN.

Day #4 DC:

CC:

08/02/2003 3136'-3194' OA

Present Operation: Drill out cement plugs.

Start rig up. Continue drilling cement, drilled 113.5' fell thru. TIH to 2981' tagged cement plug at the OA perfs. Pressure test to 500 psi would not hold, leak off approx 1/2 bbl/ min. TOH to PU packer and try to isloate hole. TIH to 928', pressure up to 500 psi would not hold, TIH to 1254', pressure up to 500 psi would not hold, TIH to 1900' pressure up 500 psi held, TOH to 1580' pressure test to 500 psi would not hold, TIH to 1710' pressure up to 500 psi would not hold, holes at 1580' & 1710' communicating. TIH to 1775' pressure test to 500 psi held. TOH to 192' original hole pressure tested to 500 psi, leaked off at 1/2 bbl/min. Shut down for night and weekend.

Day #5 DC

CC:

08/05/2003 3136'-3194' OA

Present Operation: Set balanced cement plugs.

Start rig. TIH with 27 stds to 1807', pump 20 sacks Type III cement, spot bottom plug from 1807' to 1482'. TOH 7 stands to 1355'. Install valve in tbg and hold 400 psi on plug using rig pump. Hold pressure for 3 3/4 hrs. TOH 16 stds to 327', pump 13 sacks Type III cement, spot top plug form 300' to 100'. TOH all the way, hook up rig pump to casing and try to hold 200 psi on plug, would not hold. Shut down for night and let plug set up. Day #6 DC:

08/06/2003 3,136'-3194' OA

Present Operation: Squeese cement plug

Start rig up. Pressure test casing to 220 psi. 160 psi/5 min., 135 psi./10 min. & 120 psi./15 min. TIH to tag up, tagged cement @ 219". TOH PU packer, 2 stds set packer @ 148.52'. Prepare squeeze hole 2 192', pump approx. 3 bbls. (12-1/2 sks) cement, displace w/ 1/2 bbl. pressure came up to 1380 psi., shutin well w/ 1380 psi. on plug & 500 psi. on backside. Cement approx 1/2 bbl below packer. RDMO BJ Services & shut down for night. Day #7 DC: CC:

08/07/2003 3,136'-3,194' OA

Present Operation: Drilling out cement plugs

Held safety meeting, serviced rig, PKR stuck worked until free, TOOH w/ PKR plugged w/ cement & last it of tbg. Pressure tested to

220# held 5 min. TIH w/ drill string & tagged @ 141.4' resumed drilling down to 226' pressured up to 200#-180# in 1 min. 180#-160# in 2 min. 160#-140# in 3 min. 140#-130 in 4 min. Resumed drilling to 377' kicked out of cement, MD to 1676'& tagged. Pressure tested to 230#-200# in 1 min. 200#-170# in 2 min. 170#-150# in 3 min. Secured rig SDFD @ 6:00 PM. Day #8 DC: CC:

08/08/2003 3136'-3194', OA.

Present Operation: TOH, scraper run, test csg w/ pkr.

TOH w/ 23 jts 2 3/8" tbg, x-over, 6-3 1/8" DC, bit sub & 3 7/8" cone bit. PU & TIH w/ 3 7/8" cone bit, bit sub, 2 3/8" x 4 1/2" Weatherford

scraper & 52 jts 2 3/8" tbg. Tag TOC @ 1676'. Did not feel any tight spots. TOH w/ 52 jts 2 3/8" tbg, csg scraper, bit sub & bit. PU & TIH

w/ Arrowset 32-A tension set 2 3/8" x 4 1/2" packer, unloader & 44 jts 2 3/8" tbg. Set packer @ 1427' KB. w/ 22000# tension (16000# over string weight) Load tbg w/ approx. 5 bw w/ rig P/. Press test 4 1/2" csg & cem plg P/ dn tbg to 260 psi. bled off. 1 min: 240, 2 min: 220, 4 min: 210. PU on tbg to 24000#. Press test to 290 psi. Isolate wellhead. 1 min: 280, 2 min: 270, 3 min: 265, 4 min: 260. Release packer. SIH w/ 1 jt. Set pkr @ 1459'. Pr test to 320 psi. 1 min: 310, 2 min: 305, 3 min: 300, 4 min: 295.

RIs pkr. SIH w/ 1 jt. Set pkr @ 1490'. Pr test to 310 psi. 1 min: 300, 2 min: 290, 3 min: 285, 4 min: 280, 10 min: 270. RIs pkr. TIH w/ 1 std.

Set pkr @ 1555'. Pr test to 330 psi. 1 min: 310, 2 min: 300, 3 min: 295, 4 min: 290. Rls pkr. TIH w/ 1 std. Set pkr @ 1620'. Pr test to 310 psi.

1 min: 300, 2 min: 290, 3 min: 285, 4 min: 280. Rls pkr. SIH w/ 1 jt. Set pkr @ 1652'. Pr test to 310 psi.1 min: 300 psi, 10 min: 300 psi, 15 min: 300. Rls pkr. TOH w/ 51 jts 2 3/8" tbg & pkr. Secure well. SDFD.

Prep to spot cem squeeze from 300-100' in am. Day #9 DC: CC:

08/09/2003 3,136'-3,194' OA

Present Operation: Prep to drill out cement in am.

TIH w/ 10 jts 2 3/8" tbg open-ended. EOT @ 327' KB. MIRU BJ Services.

Safety meeting. Pressure test lines to 1000 psi. Pump 2 bw down tbg to establish circulation up tbg/csg annulus. Mix & spot 16 sx (4 bbls slurry) Type III cement w/ 2% CaCl down tbg w/ returns. Rate: 1 bpm, TP: 50-30 psi., 14.6 ppg., SD. TOH slowly w/ 10 jts. tbg. Close blind rams. Displace cement down csg w/ .7 bw. Rate; .5 bpm., CP: 30-342 psi. Steep pressure increase during last .2 bw. SD. CP: 342 psi. 5 min: 327 psi., 10 min: 315 psi., 15 min: 308 psi., 1 hr. 258 psi., 3 hr: 234 psi. Bled off pressure. TIH w/ 4 jts. tbg. RD BJ. Secure well. SDFD. WOC. Day #10 DC:

08/10/2003 3,136'-3,194' OA

Present Operation: WOC, rig repair, drill out cement Mon am.

Pressure test casing & cement plug w/ rig pump to 330 psi. for 5 min. Held good. RU swivel & drilling equipment. TIH w/ 3 7/8" bit. Bit sub & 3-3 1/8" drill collars. Tag cement @ 82'. Establish circulation @ 100 psi. & approx. 2 bpm. Easy drilling to 103'. Good returns. Some green cement to 150'. Harder cement to 18'. Some green cement to 190'. Harder cement to 194'. Developed bad leak on hydraulic oil hose to swivel. Circulate clean. Pressure test casing & cement plug to 230 psi. for 5 min. Held good. Decision made to WOC & rig repair until Mon. morning. SDFD. Day #11 DC: CC:

08/12/2003 3,136'-3,194' OA

Present Operation: Drill out cement plugs.

Replace hydraulic hose. Prep to drill. Establish circulation @ 100 psi. & approx. 2 bpm. Start drilling 2 194'. Drill out cement to 226'. Hard cement. Pressure test casing & cement plug to 280 psi. 1 min: 280, 3 min: 275, 4 min: 275, 5 min: 270. Resume drilling. Drill out to 318'. Drop thru. Cement stringers to 335'. No tag to 389'. Circulate clean. LD 6 jts 2 3/8" tbg. Stand back drill collars. Check DC connections & bit, bit sub, 6-3 1/8" DC, x-o & 47 jts 2 3/8" tbg. Tag cement @ 1674'. Resume drilling. Easy drilling-soft cement to 1735'. Harder cement to 1799'. Drop thru. Cement stringers to 1815'. No tag to 1864'. Circulate clean. Rain. SDFN.

CC:

08/13/2003 3,136'-3,194' OA (squeezed)

Day #12 DC:

Present Operation: Drill out scale & CIBP.

TIH w/ 35 jts 2 3/8" tbg (total: 87 jts tbg.) Tag cement @ 2977'. Pressure test casing & cement to 240 psi. 1 min: 220, 2 min: 200, 3-4 min: 170, 5 min: 160. Prep to drill. Establish reverse circulation @ 175 psi. & approx. 2 bpm. Start drilling @ 2977'. Drill out hard cement to 3026'. Very dirty cement water @ pump suction. Clean out mud tank. Roll hole clean w/ 60 bbls. 2% kcl. water & fill mud w/ 2% kcl. water. Resume drilling @ 3026'. Drill out hard cement to 3198'. Drop thru. Cement stringers to 3220'. No tag @ 3252'. (95 jts.). Circulate clean. Pressure test casing (2% kcl water) to 230 psi. 1 min: 180, 2 min: 150, 3 min: 120, 4 min: 110, 5 min: 100. Bled off pressure. Secure well. SDFN. Day #13 DC:

(COMPLETION) Triple P rig 7

08/14/2003 3136'-3194' OA (squeezed) 3680'-3733' PC

Present Operation: SIH w/ production tbg string, swab.