07/24/13

TYPE SUID

david_stewart@oxy.com

e-mail Address

PRG1320536170

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

		ADMINISTRATIVE APPLI	CATION CHECKLIST	
TH	HIS CHECKLIST IS N	MANDATORY FOR ALL ADMINISTRATIVE APPLICATION WHICH REQUIRE PROCESSING AT THE	ONS FOR EXCEPTIONS TO DIVISION RULES A E DIVISION LEVEL IN SANTA FE	ND REGULATIONS
Applic	[DHC-Dow [PC-Po	andard Location] [NSP-Non-Standard Provinted Province Commingling] [CTB-Lease Composition] [CTB-Lease Stope Commingling] [OLS - Off-Lease Stope CTF-Lease Stope Stope CTF-Lease Stope CTF-Leas	mingling] [PLC-Pool/Lease Commorage] [OLM-Off-Lease Measuremoressure Maintenance Expansion]	ingling] ent]
[1]	TYPE OF A	PPLICATION - Check Those Which Ap Location - Spacing Unit - Simultaneous NSL NSP SD	ply for [A] s Dedication	xy 625-26°
	Checi [B]	k One Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC	PC OLS OLM	120-A
	[C]	Injection - Disposal - Pressure Increase ☐ WFX ☐ PMX ☒ SWD [- Enhanced Oil Recovery IPI	NB 1-1-120-A
	[D]	Other: Specify: AMEND SWD-1420 I	(
[2]	NOTIFICAT [A]	TION REQUIRED TO: - Check Those V Working, Royalty or Overriding R		
	[B]	Offset Operators, Leaseholders or	Surface Owner	
	[C]	Application is One Which Require	es Published Legal Notice	
	[D]	Notification and/or Concurrent Ap U.S. Bureau of Land Management - Commissioner of		
	[E]	For all of the above, Proof of Noti	fication or Publication is Attached, ar	nd/or,
	[F]	☐ Waivers are Attached		
[3]		CCURATE AND COMPLETE INFORMATION INDICATED ABOVE.	MATION REQUIRED TO PROCE	SS THE TYPE
	val is accurate attion until the re	ATION: I hereby certify that the informat and complete to the best of my knowledge equired information and notifications are so	e. I also understand that no action wis submitted to the Division.	Il be taken on this
David	Stewart	e: Statement must be completed by an individual Attached e-mail	Sr. Regulatory Advisor	07/23/2013
Print or	r Type Name	Signature	Title	Date

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD

Sent: Tuesday, July 23, 2013 2:56 PM

To: 'David_Stewart@oxy.com'

Cc: Joseph_Michaiel@oxy.com; Gonzales, Elidio L, EMNRD; Kautz, Paul, EMNRD; Ezeanyim,

Richard, EMNRD

Subject: RE: OXY USA Inc. - NBR #1 SWD - 30-025-26976 - Recompletion to SWD

David:

The package of information and the proposed changes in well construction have been reviewed with the Artesia District and with Richard Ezeanyim of the Engineering Bureau. It is OCD's opinion that the current TOC of 4710 ft for the 7 7/8-inch casing along with top perf being lowered to the proposed 5018 ft depth is sufficient to satisfy the requirements of the SWD permit. I will go and amend the existing permit to reflect the change in the top perf location and that the final TOC is acceptable.

You need to be aware: 1. that the packer will have to be located no shallower than 4918 ft based on the new shallow perf depth and 2. that the max surface inject pressure will increase to 1004 psi. Also, I need a clarification on the injection interval; you noted a lower perf of 5280 while the proposed C-108 completion showed 5998 ft for the lowest perf. Since I am amending the permit, what is going to be final interval, considering the planned life of the SWD well? Please provide some information regarding the last item. Thanks. PRG

Phillip R. Goetze, P.G.

Engineering Bureau, Oil Conservation Division 1220 South St. Francis Dr., Santa Fe, NM 87505

O: 505.476.3466 F: 505.476.3462

From: David Stewart@oxy.com [mailto:David Stewart@oxy.com]

Sent: Tuesday, July 23, 2013 12:11 PM

To: Gonzales, Elidio L, EMNRD; Kautz, Paul, EMNRD; Goetze, Phillip, EMNRD

Cc: Joseph Michaiel@oxy.com

Subject: OXY USA Inc. - NBR #1 SWD - 30-025-26976 - Recompletion to SWD

Gentlemen;

OXY has completed the plugback portion of the recompletion on our NBR #1 (30-025-26976) conversion to SWD. After we perforated and squeezed the 7-5/8" casing @ 5220' w/ 220sx cmt, a CBL was ran and shows the TOC @ 4710'. The SWD permit was approved for a top perf @ 4952', but OXY plans on the top perforation to be @ 5018'. Before we continue to complete the well, we would like to know if the TOC @ 4710' will be sufficient with the top perf @ 5018'. We are concerned about perforating the casing again to attempt to bring the cement up to 4500' as was originally proposed.

Please see attached for a copy of the CBL, SWD permit, PB Application and work that has been performed (plan on filing this after work has been completed). If you need any additional information, you can contact either myself or Joseph Michaiel @ 713-350-4928. We really appreciate your help on this.

Thanks, David Stewart Sr. Regulatory Advisor OXY Permian Wk-432-685-5717 Cell-432-634-5688

Fax-432-685-5742 david_stewart@oxy.com

From: Michaiel, Joseph

Sent: Tuesday, July 16, 2013 12:47 PM

To: Stewart, David

Subject: RE: NBR #1 SWD

Thanks David.

I should clarify. 5018'-5280' is the injection zone. If we have to perf for a second cement squeeze, we have the risk of perforating 2 casings, which would be close to the current TOC at 4700'.

Sorry for the confusion.

Thanks, JM

From: Stewart, David

Sent: Tuesday, July 16, 2013 12:43 PM

To: Michaiel, Joseph

Cc: Balaji, Prithi; Ruidiaz-Santiago, Cyd M; Hood, Ken; Thompson, Buddy W; Gartland, Jeff

Subject: RE: NBR #1 SWD

I will do some checking with the NMOCD in Santa Fe and Artesia and will let you know what they have to say.

Thanks, David S. Wk - 432-685-5717 Cell - 432-634-5688 Fax - 432-685-5717

From: Michaiel, Joseph

Sent: Tuesday, July 16, 2013 12:33 PM

To: Stewart, David

Cc: Balaji, Prithi; Ruidiaz-Santiago, Cyd M; Hood, Ken; Thompson, Buddy W; Gartland, Jeff

Subject: NBR #1 SWD

David,

As mentioned on the phone, after reviewing the CBL, we TOC at 4,700'. For us to meet state regulation of 500' above top perf we would have to go back and do another cement squeeze. We want to perf between 5,018' – 5,280' as this is the best zone to inject into. The risk in doing that, is that we could potential perforate through 2 casing strings and if the cement squeeze isn't successful, we could create more damage by opening up a channel to contaminate fresh water.

The CBL shows that we have 300' of very good cement and should provide adequate isolation. Also above the Bell Canyon we have 100' of the Lamar which is a limestone and an Anhydrite zone, those 2 zones can also act as a barrier and will stop the frac from propagating upwards.

With that in mind, can we go back to the NMOCD and see if it would be ok go ahead and perf with only 300' of cement on top?

I'm attaching the CBL, wellbore sketch, and log. Please let me know if more information is needed.

<< File: NBR #1.pdf >> << File: oxy-nbr1-07-15-13-rcbl.VIEW.PDF >> << File: NBR #1 Convert to SWD Well Data Sheet.xlsx >>

Thanks,

JM

OXY USA Inc. - Current NBR #1 API No. 30-025-26976



TD-15372'

17-1/2" hole @ 762' 13-3/8" csg @ 762' w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006' 10-3/4" csg @ 5006' w/ 3135sx-TOC-Surf-Circ

Perf @ 5220' sqz 220sx cmt, TOC-4710'

CIBP @ 6817' w/ 30sx to 6775' Tagged

30sx @ 8668-8565' Tagged

30sx @ 9823-9723' 9/07-CIBP @ 9823'

2/03-CIBP @ 11100'

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

2/03-CIBP @ 13720' w/ 50' cmt

12/96-CIBP @ 13910' 7/91-CIBP @ 14725' w/ 50' cmt Perf @ 9898-9920'

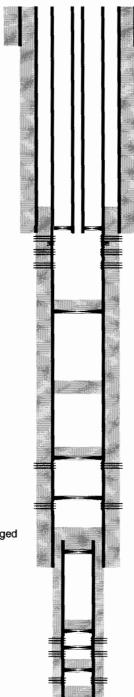
Perf @ 11160-11184'

9-1/2" hole @ 12066' 7-5/8" csg @ 12066' w/ 2040sx-TOC-5240'-CBL

6-1/4" hole @ 15372' 5" liner @ 11768-15120' w/ 580sx-TOC-11768'-Circ

Perfs @ 13756-13895' Perfs @ 13921-13927'

Perfs @ 14739-14956'



17-1/2" hole @ 762' 13-3/8" csg @ 762' w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006' 10-3/4" csg @ 5006'

Perf @ 5220' sqz 220sx cmt, TOC-4710'

w/ 3135sx-TOC-Surf-Circ

2-7/8" 6.5# J55 compsite tbg & nickel plated Arrow Set pkr @ 4920'

CIBP @ 6817' w/ 30sx to 6775' Tagged

30sx @ 8668-8565' Tagged

30sx @ 9823-9723' 9/07-CIBP @ 9823'

2/03-CIBP @ 11100'

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

2/03-CIBP @ 13720' w/ 50' cmt

12/96-CIBP @ 13910' 7/91-CIBP @ 14725' w/ 50' cmt Perf @ 9898-9920'

Perfs @ 5018-5954'

Perf @ 11160-11184'

9-1/2" hole @ 12066' 7-5/8" csg @ 12066' w/ 2040sx-TOC-5240'-CBL

6-1/4" hole @ 15372' 5" liner @ 11768-15120' w/ 580sx-TOC-11768'-Circ

Perfs @ 13756-13895' Perfs @ 13921-13927'

Perfs @ 14739-14956'

Casing Record Surface String Prof. String Production String Liner	Witnessed By Bore Run Number Bit	Location Recorded By	Time Well Ready Time Logger on Bottom	Max. Recorded Temp. Festimated Cement Ton	Type Fluid	Open Hole Size	Bottom Logged Interval	Depth Logger	Depth Driller	Date	Comp Well Field Count State	ly		२ #1 २						
Size 7.625"	hole Record From		om	8 0			val				Log Measured From Drilling Measured From	Permanent Datum	60		Location:	County	Field	Well	Company OXY	TADE
Wgt/Ft N/A	To S	ANDREWS TX KNAKE	R.O.A. 3:00 PM	N/A	N/A	N/A	6632'	6634'	6720'	07/15/13	From K.B. 7' ed From K.B.	G.L.	SEC N/A TWP N/A	N/A	A	EDDY	NBR	NBR #1	ОХҮ	1,2
Тор	ize We								PBTD			Elevation	A RGE N/A	Б	API#: N/A	State				RADIAL BOND GAMMA-RAY / CCL LOG
Bottom	Tubing Record To To										G.F.	N/A K.B.	Flevation		Other Services	ZM				OND //CCL

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

LOG RAN USING 7' K.B. ON RENEGADE DEPTH ONLY



MAIN PASS 1000 PSI

