

EAST RINN 1

Existing Features	
KB	11
Surface csg shoe at	
	536

Bottom of Foxhills (FHM)	739
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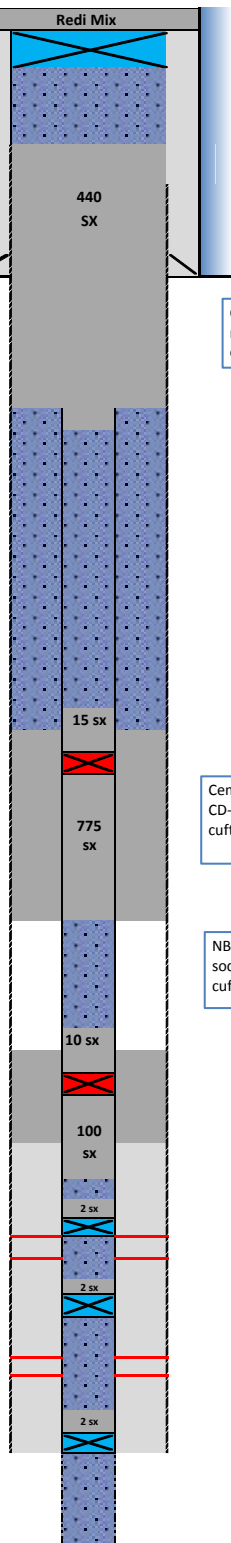
Sussex	Top	4234
Shannon	Bottom	4803
Shannon is productive in 1-mile		

Nibrara	Top	7174
TOC Remedial existing (CBL)		6994
BOC Remedial existing (CBL)		7480
TOC Primary existing (CBL)		7500

Geologic Top		
Code	Perf Top	7471
	Perf Bottom	7498

Geologic Top		
J Sand	Perf Top	7896
	Perf Bottom	7936

4-1/2" CSG 11.6#		8020
Geologic Top		
Dakota	Openhole Top	8020
	Openhole Btm	8145
PBMD		8145



Proposed Additions for P&A	
80	CIBP (8-5/8")

300	TOC
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Cement Blend: Type III w/ cello flake and CaCl₂, mixed at 14.8 ppg and 1.33 cuft/sk. with 40% excess and 12.5" hole size. (Offsets)

950	Casing Stub
1050	Bottom of cement in csg

3870	TOC in 4-1/2" csg
4030	TOC in annulus
4060	CICR

Cement Blend: "G" w/ 0.25 pps cello flake, 0.4% CD-32, 0.4% ASA - 301, mixed at 15.8 ppg and 1.15 cuft/sk, assume 10" plus 40% (Caliper at 7200')

5000	Bottom of cement
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NB Cement Blend: 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52. Mixed at 13.5 ppg and 1.71 cuft/sk yield with 20% excess and 10" hole size.

6600	TOC in csg
6750	TOC in annulus
6780	CICR

6980	BOC
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7410	CIBP w/ 2 sk cmt cap
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7820	CIBP w/ 2 sk cmt cap
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8000	CIBP w/ 2 sk cmt cap
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API# 0512307653				
Well: EAST RINN 1 (74326)				
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft ³ /ft
Surface Casing	8 5/8" 24#	536	0.0637	0.3576
Production Casing	4.50 (11.6#)	8020	0.0155	0.0873
Tubing Size				
Bit Size	7 7/8		0.0602	0.3382
Hole Size	9		0.0787	0.4418
Hole Size	10		0.0971	0.5454
Hole Size	12.5		0.1518	0.8522

Cement Calculations				
Section	Volume cu-ft	Cement Sacks	Excess	Top Plug
S/C hole	84.39	63.45		12.5" hole
Open Hole	493.94	371.38	40%	
P/C hole	8.73	6.56		
Total Top Plug	587.07	441.40	440	
585.2		cu-ft		

In Hole	809.92	704.28	40%	SX/ SH Plug 10
out CICR	82.06	71.36		
on top CICR	16.59	14.42		
Total	908.57	790.06	790	

	908.5	CD-FT		
NB/CD Annular	146.04	85.41	20%	NB/CD Plug 9" hole caliper at 7200
NB/CD Csg. Out	17.46	10.21		
NB csg top	15.71	9.19		
Total	179.22	104.81	110	

Cement Yield	1.33	1.15	1.71	1.38
Top Plug	SX/SH	NB/Cd Squeeze	NB/Cd in pipe	

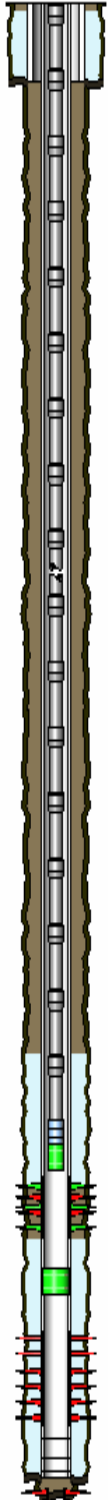
Legend	
	Existing cement with CBL
	assumed cement w/ no CBL
	cast iron cement retainer
	cast iron bridge plug
	mud
	2% KCL Water

KERR-MCGEE OIL AND GAS ONSHORE LP
EAST RINN 1
SW SE 15 2N 68W 644' FSL 1,999' FEL
WELD,COLORADO
08/13/2014

AREA: W2 ROUTE: W26 Spud: 02/14/1973 WINS No.: 74326 AFE/WO#: PENDING-74326 API#: 0512307653

GL: 4899 KB: 4910 MTD: 8145 TVD: 8145 LOG MD: 8136 PBMD: 8145 PBTVD: 8145

Directions: I25 W FRONTAGE RD & WCR 20, W 3/4, N INTO



<u>HOLE SECTIONS</u>	<u>Size</u>	<u>Top</u>	<u>Btm</u>	<u>TD Date</u>			
SURFACE	12.25	11	536	02/14/1973			
PRODUCTION	7.88	536	8022	03/05/1973			
DEEPENED	3.88	8022	8145	05/02/1997			

<u>TUBULARS</u>	<u>Tool Type</u>	<u>Joints</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Top D</u>	<u>Bottom D</u>
SURFACE CASING	Casing	12	8.63	24	K-55		11	526
PRODUCTION CASING	Casing	244	4.50	11.6	K-55	LTC	11	7980
	Casing	1	4.50				7980	7981
	Casing	1	4.50	11.6	K-55	LTC	7981	8019
	Casing	1	4.50				8019	8020
RETRIEVABLE BRIDGE PLUG	Retrieval Bridge F	1	4.00				7701	7702
PRODUCTION TUBING	Tubing	241	2.38	4.7	J-55	8RD EUE	11	7436
	Seating Nipple	1	2.38				7436	7437
	Notched Collar	1	2.38				7437	7438

<u>CEMENT JOBS</u>	<u>Stage</u>	<u>Sacks</u>	<u>Cement Jobs</u>	<u>Top D</u>	<u>Btm D</u>	<u>cbl</u>
SURFACE CASING	STAGE 1-LEAD	250	50/50 POZ-MIX	50	400	No
	STAGE 1- TAIL	100	NEAT	400	526	No
PRODUCTION CASING	STAGE 1	225	LEAD 50/50 POZ-MIX	7508	8020	Yes
PRODUCTION CASING	REMEDIAL CEMENT	200	LEAD G	6994	7480	Yes

<u>PERFORATIONS</u>	<u>Formation</u>	<u>Zone</u>	<u>Top</u>	<u>Btm</u>	<u>Date</u>	<u>Reason</u>	<u>Comments</u>
	CODELL		7471	7491	11/11/1990	PRODUCTION	
	CODELL		7471	7498	10/12/2005	PRODUCTION	RE-PERF CODELL
	SQUEEZE PERFS		7480	7481	10/13/1990	CEMENT SQUEEZE	
	J SAND		7896	7898	03/17/1973	PRODUCTION	Below sand-capped RTBP@ 7
	J SAND		7912	7920	03/17/1973	PRODUCTION	
	J SAND		7924	7936	03/17/1973	PRODUCTION	
	DAKOTA (OPENHOL		8080	8145	05/02/1997	PRODUCTION	

Comments: