

Cimarex Cottonberry 20 Federal 1H Rev0 RM 19Jan18 Anti-Collision Summary Report

Analysis Date-24hr Time: January 19, 2018 - 16:18
Client: Cimarex
Field: NM Eddy County (NAD 83)
Structure: Cimarex Cottonberry 20 Federal 1H
Slot: Cimarex Cottonberry 20 Federal 1H
Well: Cimarex Cottonberry 20 Federal 1H
Borehole: Original Borehole
Scan MD Range: 0.00ft ~ 11110.90ft

Analysis Method: 3D Least Distance
Reference Trajectory: Cimarex Cottonberry 20 Federal 1H Rev0 RM 19Jan18 (Non-Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: All local minima indicated.
Version / Patch: 2.10.696.0
Database \ Project: US1153APP452.dir.slb.com\drilling-NM Eddy County 2.10

ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Trajectory Error Model:

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan:

Not performed!

Selection filters:

Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Cimarex Cottonberry 20
Federal 5H Rev0 RM 19Jan18
(Non-Def Plan)

Offset Trajectory	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory MD (ft)	Reference Trajectory TVD (ft)	Risk Level	Alert	Status
	40.02	32.51	37.52	7.50	N/A	MAS = 9.91 (m)	0.00	0.00	CtCt<=15m<15.00	Enter Alert	
	40.01	32.51	37.51	7.50	N/A	MAS = 9.91 (m)	24.00	24.00		WRP	
	40.01	32.51	28.36	7.50	4.10	MAS = 9.91 (m)	1520.00	1520.00		MinPts	
	40.25	32.51	27.78	7.74	3.79	MAS = 9.91 (m)	1680.00	1680.00		MINPT-O-EOU	
	42.34	32.51	29.03	9.83	3.68	MAS = 9.91 (m)	1810.00	1810.00		MinPt-O-SF	
	42.72	32.51	22.92	10.21	2.33	MAS = 9.91 (m)	3110.00	3108.15		MinPts	
	43.70	32.51	22.03	11.19	2.15	MAS = 9.91 (m)	3450.00	3447.51		MINPT-O-EOU	
	45.08	32.91	22.31	12.18	2.10	OSF 1.50	3640.00	3637.16		MinPt-O-ADP	
	48.06	35.39	23.64	12.68	2.08	OSF 1.50	3920.00	3916.64		MinPt-O-SF	
	114.14	57.66	74.87	56.48	3.04	OSF 1.50	6760.00	6756.37		MinPts	
	187.06	58.26	147.39	128.80	4.96	OSF 1.50	7040.00	7020.08	OSF>5.00	Exit Alert	
	390.62	119.20	310.33	271.43	4.99	OSF 1.50	10800.00	7422.02	OSF<5.00	Enter Alert	
	372.58	128.79	285.86	243.77	4.40	OSF 1.50	11110.90	7440.00		MinPts	