

Coachman Energy Operating, LLC.

PRELIMINARY DRILLING, GEOLOGICAL & DIRECTIONAL PROGNOSIS

PROSPECT: Kokopelli **Lease #** COC 66370 **Field #:** 47525
WELL NAME: Federal 14-15-7-21 **FIELD:** Kokopelli
DATE: 12/11/2014 **DRAFT**
API #: 05-045-22460-00

SURFACE LOCATION: SWNE (2345' FNL x 713'FEL) Sec. 21-T6S- R91W
 Garfield County, Colorado

SPACING UNIT & TYPE: 40 acre spacing **AFE #:** EK21B010

WELL PAD: FEDERAL 21B Pad
ELEVATION: **KB:** 6955 **GL:** 6932 finish, graded GL **Orig. GL:** 6933'

ESTIMATED TD (MD & TVD): 13,550 'MD , 13,521' TVD (Revised)
FORMATION AT TD: Dakota **OBJECTIVE FORMATION:** Mancos

DRILLING CONTRACTOR: Frontier Drilling Rig # 28

DRILLING PROGRAM
Note: Fresh water mud on Surface
Water Base LSND mud for Prod. hole

| | Casing Program | | | |
|---------------------|----------------|--------------------------|---------|-----------------------------|
| | Hole Size | Casing size | Depth | Comments |
| Surface Casing | 13.50" | 9-5/8" 36# J-55 STC | 1500' | cement to surface, 410 sxs. |
| Intermediate Casing | 8.750" | 7.0" 26# HCP-110 LTxC | 8966' | cement designed to 1000'. |
| Production Casing | 6.00" | 4.50" 13.50# HCP-110 LTC | 13,550' | 560 sxs. TOC at 4000' |
| Tieback/Frac String | N/A | N/A | | |

FORMATION TOPS

| FORMATION | DRILL DEPTH (est.) | | DATUM (est.) | COMMENTS |
|------------------------------|--------------------|--------|--------------|---|
| | MD | TVD | | |
| Wasatch | 0 | 0 | 6955 surface | |
| Top of MV -Williams Fork | 4,404 | 4,375 | 2,580 | Have well back to vertical by 4000' TVD |
| Top of Gas | 4,479 | 4,450 | 2,505 | |
| Cameo | 7,559 | 7,530 | -575 | |
| Rollins | 7,770 | 7,741 | -786 | |
| Cozzette | 8,348 | 8,319 | -1,364 | |
| Corcoran | 8,531 | 8,502 | -1,547 | |
| 7" Intermediate Casing Point | 8,979 | 8,950 | -1,995 | |
| Mancos | 9,009 | 8,980 | -2,025 | |
| Niobrara | 12,159 | 12,130 | -5,175 | |
| Frontier | 13,279 | 13,250 | -6,295 | |
| Dakota | 13,550 | 13,521 | -6,566 | |
| Total Depth | 13,550 | 13,521 | -6,566 | Design TOC on Prod. Csg = 4000' |

LOGGING PROGRAM

OPEN HOLE LOGS: Run #1- at ICP - Density/Neutron/HDIL/ GR and Full Wave Sonic. One run if possible
 Run #2 - At TD - Density/Neutron/ HDIL/ GR and Full Wave Sonic. Plus STAR (FMI) log.

LOGGING COMPANY: Baker Hughes - Grand Junction, CO 970-263-7453

MUD LOGGER: Precision Well Site Consulting, Inc. 970-640-3741

WELLSITE GEO. CONSULTANT: John Hicks
SAMPLES: As customary in area, 30' samples from the Williams Fork thru Rollins.

DIRECTIONAL INFORMATION

BHL: 1969' FNL x 670' FEL, Section 21-T6S- R91W
Vertical Section 379' at N 7 E direction.
KOP/ Max Angle: 800 feet & 10 (+/-) degrees
Have well back to Vertical by approx. 4500' TVD

GPS Coordinates: 39.514404 N Lat & 107.552396W Long. (NAD 83) -Surface Location

OFFSET & CONTROL WELLS

WELL NAME **LOCATION**
 Federal 21A wells (5 wells) & Federal 14/15-1-21 thru Fed 14/15-6-21 (on same pad)

ANTICIPATED COMPLETION: Conventional perforate and frac 4-7 prospective Mancos/ MV gas zones.

PLANNED MUD & FLUID SYSTEMS: Surface Hole must be drilled with Fresh Water mud system.
 Drill Production hole with Water based LSND mud system, be prepared for Lost Circulation 2000' to TD
 Closed mud system with no pit, must be utilized.

Cementing Design & Plan:

Surface Csg: 20% Excess assumption used,
 250 sxs 12.30 ppg Lead cement, 2.38 ft3/sx yield,
 followed by 160 sxs 12.8 ppg Tail cement
 2.11 ft3/sx yield.

Int. Casing: See Halliburton proposal, 3 slurry system

Production Csg: 15% Excess assumption used,
 ThermaCem GJ1 System on Production Cement
 ThermaCem: approx. 560 sxs, 13.50 ppg cement,
 1.75 ft3/sx yield, 8.24 gal water / sx
 Adjust Cement volumes to Log Caliper Calculations,
 If Logs Run. If not, assume 15% on gauge hole.

