

CONFIDENTIAL

NE CHACO COM #173H CHACO UNIT NE HZ (OIL)

(page 1)

Spud: 6/23/14

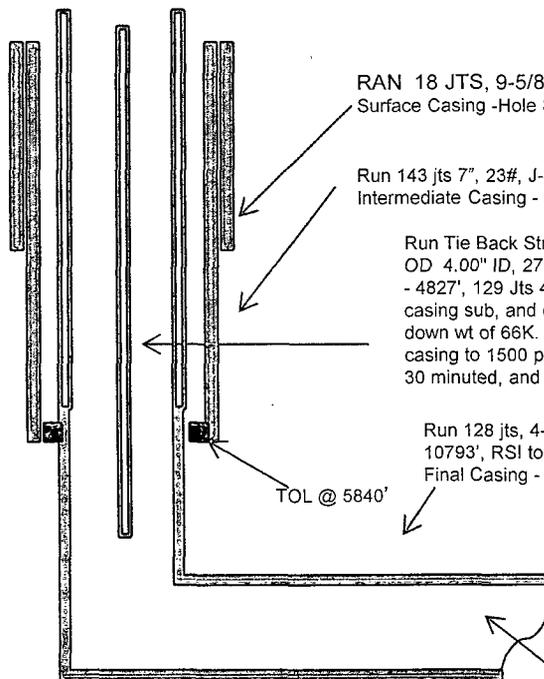
Completed: 12/2/14

SHL: 1205' FNL & 484' FWL
NW/4 NW/4 Section 13(D), T23N, R7W

BHL: 1209' FNL & 97' FEL
NE/4 NE/4 Section 15 (A), T23N, R 7W

RIO ARRIBA NM
Elevation: 7014'
API: 30-039-31207

Tops	MD	TVD
OJO_ALAMO	1372	1369
KIRTLAND	1695	1690
PICTURE_CLIFFS	2010	2004
LEWIS	2087	2080
CHACRA	2429	2422
CLIFF_HOUSE	3512	3500
MENEFEE	3569	3556
PT_LOOKOUT	4311	4294
MANCOS	4480	4462
GALLUP	4889	4871



RAN 18 JTS, 9-5/8", ST&C, 36#, j-55, CSG SET @ 396', FC @ 349'
Surface Casing - Hole Size: 12-1/4"

Run 143 jts 7", 23#, J-55, LT&C, 8RD csg, landed @ 5980', FC @ 5935'
Intermediate Casing - Hole Size: 8-3/4"

Run Tie Back String-No-Go, and 4 1/2" 11.6# N80 casing as follows; Seal Assembly with No-Go 5.85" OD 4.00" ID, 27 Jts 4 1/2" 11.6# N80 casing, 20' X 4 1/2" 11.6# N80 casing sub/ Marker Jt set @ 4807' - 4827', 129 Jts 4 1/2" 11.6# N80 casing, 4.20', 2.02' casing subs, 1 Jt 4 1/2" 11.6# N80 casing, 1 X 2.55' casing sub, and casing hanger. Total length of all Tubulars ran in well = 5839' . Had an up wt of 76K and down wt of 66K. Landed with 36K on liner top and leaving 30K on hanger. Antelope psi test 4 1/2" casing to 1500 psi, held for 30 minutes, and recorded on chart. Psi tested 7" X 4 1/2" to 1500 psi, held for 30 minutes, and recorded on chart. All tests were good.

Run 128 jts, 4-1/2" CSG Liner, 11.6#, N-80, LT&C. 8RD CSG set @ 10869' (TVD 5501'), LC @ 10793', RSI tools 10779', marker jts @ 7504' & 9141', TOL @ 5840'
Final Casing - Hole Size: 6-1/8"

Land well at 6118' w/ 14' KB as follows 1/2 MS, 7 Jt of 2.375" J55 4.7lb 8rmd EUE tbg, 1.87" xN at 6114', packer 2.375" by 4-1/2 @ 5878', on/off tool with 1.87 FN @ 5512', 2.31" XN @ 5150', 180 Jts of 2.375" J55 4.7lb 8rmd EUE tbg 187 jts total
Land Gas lift:KB 14.5 ELEVATION Hanger 0.80, 14.80 Tubing Hanger 35jts, 1136.48,- 1151.28 GLV #9 4.10 1155.38 GAS LIFT VALVE 25jts, 811.57,- 1966.95 GLV #8 4.10 1971.05 GAS LIFT VALVE 19jts, 616.80,- 2587.85 GLV #7 4.10,- 2591.95 GAS LIFT VALVE 15jts, 487.09,- 3079.04' GLV # 6 4.10 3083.14 GAS LIFT VALVE 16jts, 514.20,- 3597.34 GLV # 5 4.10,- 3601.44 GAS LIFT VALVE 15jts, 471.63,- 4073.07GLV # 4, 4.10,- 4077.17 GAS LIFT VALVE 16jts, 518.14 4595.31 GLV # 3 4.10,- 4599.41 GAS LIFT VALVE 15jts, 486.57,- 5085.98 GLV # 2 4.10,- 5090.08 GAS LIFT VALVE 13jts, 422.09,- 5512.17 X-nipple 1.00,- 5513.17 1.87" X-nipple 10 324.48,= 5837.65 GLV # 1 4.10,- 5841.75 Screened Orifice 1,jt, 32.47,- 5874.22 SUB 4.05 5878.27 On/Off 1.70,- 5879.97 On/Off tool w/ 1.81" F PKR 6.20,- 5886.17 4.5" AS-1X Packer 7jts, 227.22,- 6113.39 2-3/8"-4.7#-J55 Tubing R-nipple 1.00, 6114'.39, 1.78" R-nipple HM 3.35,- 6117.74 2-3/8" Half Mule Shoe EOT 6117.74 End Of Tubing

TD: 10871' MD
TVD: 5501'
PBD: 10793' MD

HOLE SIZE	CASING	CEMENT	VOLUME	CMT TOP
12-1/4"	9-5/8"	245 sx	222 cu.ft.	Surface
8-3/4"	7"	882 sx	1308 cu. ft.	Surface
6-1/8"	4-1/2"	390 sx	509 cu. ft.	TOL 5840'

OIL CONS. DIV DIST. 3

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NE CHACO COM #173H CHACO UNIT NE HZ (OIL) (page 2 – lateral with completion)

Gallup 1st:
10594'-10719' +
RSI TOOL @
10779' with 18,
0.40" holes with
199,000 # 20/40
PSA Sand

Gallup 4th:
9706'-9892'-
with 24, 0.40"
holes. Frac
Gallup 4th stage
with 199,820#,
20/40 PSA
Sand

Gallup 8th:
8747'-8564'- with 24,
0.40" holes. Frac Gallup
8th stage with 226,474#,
20/40 PSA Sand

Gallup 6th:
9134'-9326'-
with 24, 0.40"
holes. Frac
Gallup 6th stage
with 198,550# ,
20/40 PSA
Sand

Gallup 3rd:
9994'-10180'- with
24, 0.40" holes.
Frac Gallup 3rd
stage with
201,200# , 20/40
PSA Sand

Gallup 2nd:
10493'-
10280'- with
24 total, 0.40"
holes. Frac
Gallup 2nd
stage with
201,200#,
20/40 PSA
Sand

Gallup 15th:
6598'-6382'- with
24, 0.40" holes.
Frac Gallup 15th
stage with
243,000# , 20/40
PSA Sand

Gallup 12th:
7358'-7601'- with
24, 0.40" holes.
Frac Gallup 12th
stage with 242,520#
20/40 PSA Sand

Gallup 13th:
7012'-7258'- with
24, 0.40" holes.
Frac Gallup 13th
stage with
259,316 20/40
PSA Sand

Gallup 11th:
7704'-7890'- with 24,
0.40" holes. Frac
Gallup 11th stage with
205,160# , 20/40 PSA
Sand

Gallup 9th:
8461'-8278'- with
24, 0.40" holes.
Frac Gallup 9th
stage with
199,000# , 20/40
PSA Sand

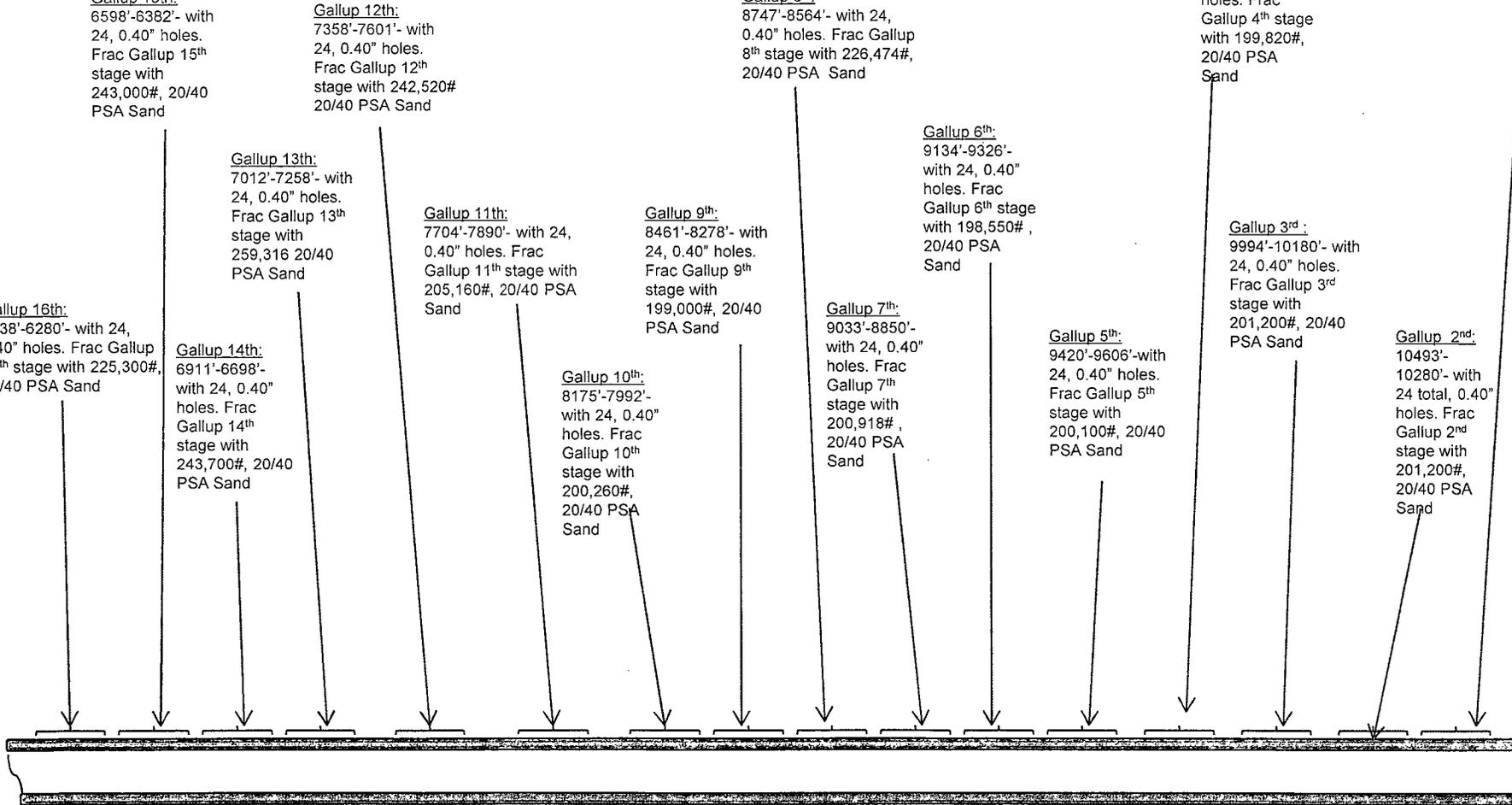
Gallup 7th:
9033'-8850'-
with 24, 0.40"
holes. Frac
Gallup 7th
stage with
200,918# ,
20/40 PSA
Sand

Gallup 5th:
9420'-9606'-with
24, 0.40" holes.
Frac Gallup 5th
stage with
200,100# , 20/40
PSA Sand

Gallup 10th:
8175'-7992'-
with 24, 0.40"
holes. Frac
Gallup 10th
stage with
200,260# ,
20/40 PSA
Sand

Gallup 14th:
6911'-6698'-
with 24, 0.40"
holes. Frac
Gallup 14th
stage with
243,700# , 20/40
PSA Sand

Gallup 16th:
6038'-6280'- with 24,
0.40" holes. Frac Gallup
16th stage with 225,300# ,
20/40 PSA Sand



See page 1 for upper portion of hole

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