TGT - LAB
REGISTROS GEOLOGICOS

FINAL WELL REPORT

WELL: LO6-26XD

DECEMBER 2012
JANUARY 2013

SAVIA PERU S.A.

CONTENTS

INTRODUCTION

TGT – LAB S.A.C. started Mud Logging Operations on the Well LO6-26XD on December 07th, 2012 at 456 feet depth, and finished on January 12th, at the depth of 9800.0 feet TD(RT), with 5.5" Casing cementation; Casing Shoe at 9798.0 feet.

Origin:	
Surface Northing	9'508,662.12 m.
Surface Easting	459,045.17 m.
Main objective:	Lower Basal Salina Formation
Secondary objective:	Upper Basal Salina Formation
Objective Northing	9'508,400 m
Objective Easting	458,133 m
Kelly Bushing	50 ft.
Water depth	-335 ft.
Total Depth	9607 ft.
Reference	DATUM-WGS -84 UTM

It is proposed to drill a wildcat well LO6-26XD to produce oil from Lower Basal Salina and Upper Basal Salina reservoir in Lobitos oil field.

The well LO6-26XD will be drilled from platform Lobitos 6 and will reach a final depth of 8961.60 feet (TVD).

The geological control for Lower Basal Salina and Upper Basal Salina reservoirs is based on stratigraphic and structural data from neighbors wells drilled in field.

This report includes the geological, rig activity from the Mud Logging Unit of the Well LO6-26XD from 456 feet measured depth (Rotary Table) from December 07th, 2012; to the Final Total Depth at 9800 feet that was reached on January 03rd, 2013.

To drill this Well, the company SAVIA PERÚ, used a "BASIC ON LINE UNIT" of Mud Logging, with the capture of On-Line Data using equipment belonging to T.G.T. LAB S.A.C.

This Unit was endowed with the following equipment:

Hook height measurement:

Draw work sensor

Drilling parameters:

Stand pipe pressure
Weight on bit
Depth (Measure Depth and True Vertical Depth)
MMRPM (Down Hole Motor RPM)
ROP (Rate of Penetration)

Mud system:

Pit Suction level # 1 (Sonic sensor)
Pit Pre-suction level # 2 (Sonic sensor)
Pit Desander level # 3 (Sonic sensor)
Pit Desilter level # 4 (Sonic sensor)

Mud pumps:

Pump # 1 (Triplex)
Pump # 2 (Triplex)
Pump # 3 (Triplex)

Gas chain specification:

Gas trap neumatic shaker box
Gas Cromatograph FID SRI 8610C gas cicle 40”

Data acquisition system:

1 computer DRILL VIEW ADQ for Real time acquisition.
1 computer Windows 2003 Server for data bases.
1 computer Windows XP, for Geology Data control.
1 computer Windows XP, for Chromatograph control.
1 computer Windows XP, for Repetition screen on CoMan office.

- The monitoring Unit is composed of a cabin equipped by T.G.T. LAB.
- The system is designed for the acquisition and storage of Geologic Information and the continuous monitoring of the perforation process.
- The analysis of the gathered information is a tool of great help for the personnel in charge of the taking of immediate decisions or of the optimization of the different variables.
- The continuous monitoring of the process allows detecting complications and mishaps in advance, as well as it helps in the prevention of situations of risk for the personnel and drilling teams.

The geologic interpretation was carried out as a continuous analysis of the drilling cuttings with the purpose of defining parameters such the content of Hydrocarbons and Lithology. For the definition of an area of interest, a good indicator is the concentration of gassy hydrocarbons extracted directly from the perforation mud. The Gas Chromatography provides a qualitative and quantitative analysis of the gas content in the sample co relatable to the composition of the hydrocarbons present.
By means of the use of different sensors installed in strategic points of the Rig, it becomes possible the record and calculate of a wide range of parameters like:

Measured Depth, Lag Depth, Bit Depth.
Rate of Penetration
Hook Load
Weight on Bit
Bit Position
RPM on Down Hole Motor
Total Bit Hours on Bottom
SPM and Total SPM
Pit Volume Totalizer
Flow in GPM
Pump Pressure
Chromatographic Analysis

In addition to the parameters measured in the different points of the drilling, inside the geology cabin and thanks to the accessories of geologic support, it was also possible to carry out the analysis of such auxiliary parameters as: complete Lithological and Show descriptions, Fluorescence Data and Drilling Operations which are included accordingly.

The On-line applications allowed in different occasions to "review" and "replay" drilling events in diverse graphic and numeric formats during the monitoring of the perforation activities. With the help of a second computer the data in On-line form it was transfered toward the database Off-Line Computer where the information was processed to allow the elaboration of different graphic registrations such as: Formation Evaluation Log.

The information obtained from the different equipment and the analysis of samples each 30 feet from 456 to 5000 feet; and each 10 feet from 5000 feet to 9800 feet; in two (2) Graphic Logs: The Formation Evaluation Log at scale 1:500 (Measured Depth and True Vertical Depth.)

In this one the penetration rate each ½ feet is included, the lithology in percentage and interpreted form, lithological description, oil and gas shows present with its corresponding evaluation; utilized bits, mud information, drilling parameters, casing, as well as those activities that were considered of interest.

T.G.T - LAB
REGISTROS GEOLÓGICOS

SAVIA
PERÚ

GEOLOGICAL REPORT

WELL AND RIG DATA

Company:	SAVIA PERU	
Well Name:	LO6-26XD	
Well Type:	EXPLORATORY	
Field:	LOBITOS OFFSHORE	
Basin:	TALARA	
State:	PIURA	
Country:	PERU	
Coordinates (WGS-84 UTM):	**North**	**East**
Origin: **Main Objective:(LOWER BASAL SALINA FM)**	9'508,400 m	458,133 m
Rotary table:	50 ft.	
Water Depth:	-335 ft.	
Spud Date:	DECEMBER 12th, 2012	
End Date:	JANUARY 03rd 2013	
Total Depth:	9800.0 ft. MD (RT); 8961.6 ft. TVD (RT)	
Drilling Contractor / Rig:	PEPESA / P-40	
Drilling Fluids:	HALLIBURTON	
Logging Contractor:	WEATHERFORD	
Mud logging / Unit:	TGT – LAB	
Well site Geologist:	C. MORALES	
TGT-LAB Geologist:	G. CARDOZA/O. OJEDA /E. SANTISTEBAN	

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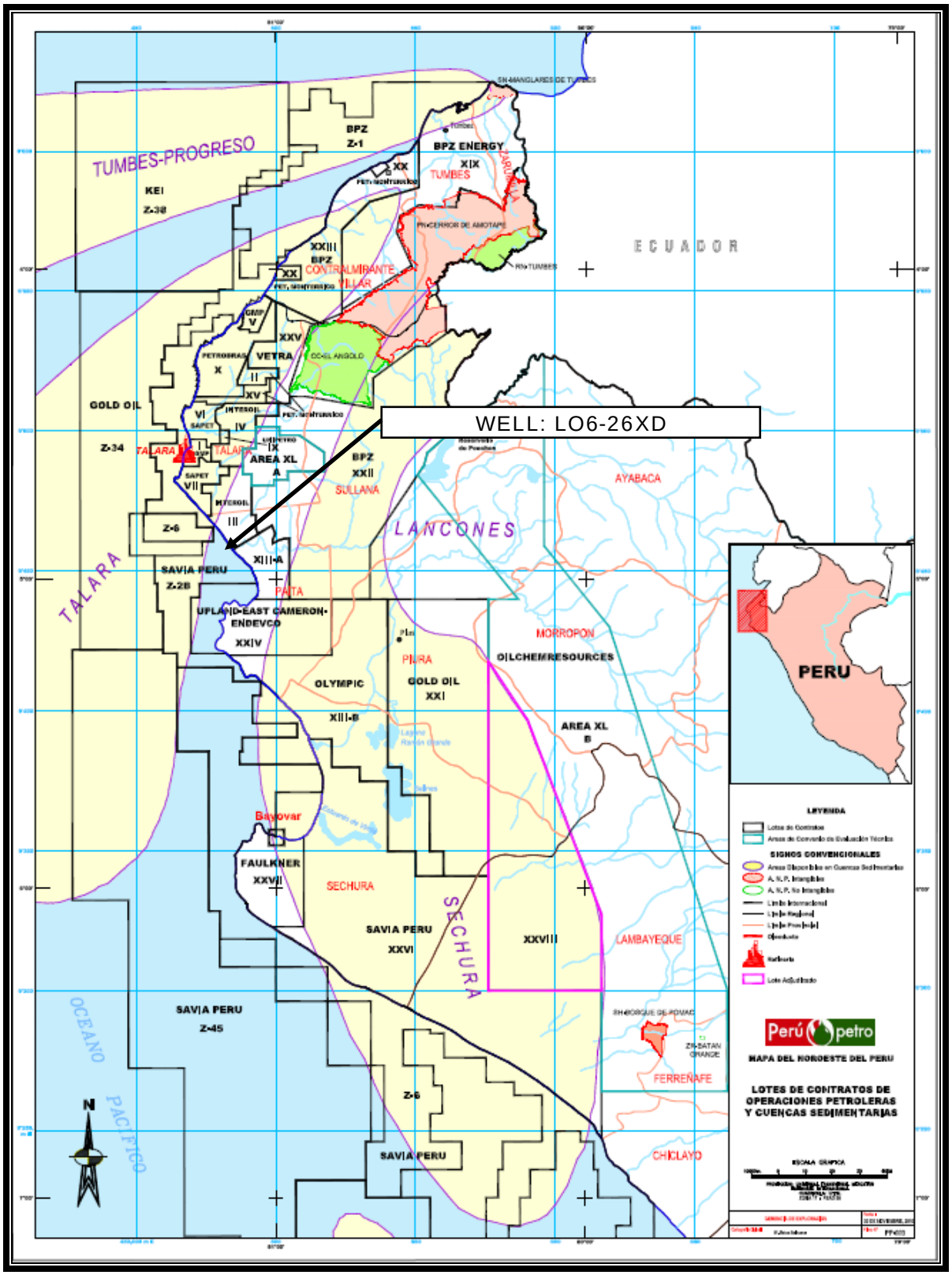
REGISTROS GEOLÓGICOS

SAVIA PERÚ



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FORMATION TOPS

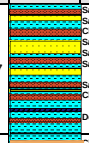
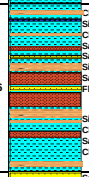
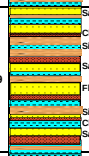
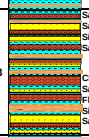
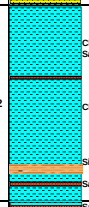
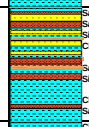
WELL LO6-26XD

SAVIA PERÚ

Elevación RKB: 50 ft **SEA DEPTH:** 335 ft

ROTARY TABLE: 50 ft.	PREDICTED TOPS			LITHOLOGIC TOPS BY SAMPLES			TOPS BY ELECTRICAL LOGS		
FORMATION/ZONE	MD (ft) RT (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)	MD (ft) RT (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)	MD (ft) RT (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)
Talara									
Chacra	1930.0	1840.0	-1790.0	1700.0	1641.68	-1591.68	1700.0	1641.68	-1591.68
Rio Bravo	4185.0	3726.0	-3676.0	3470.0	3353.29	-3303.29	3728.0	3343.27	-3293.27
Palegreda	5787.0	5066.0	-5016.0	5500.0	4831.24	-4781.24	5497.0	4828.66	-4778.66
Mogollon	6701.0	5894.0	-5844.0	5810.0	5098.11	-5048.11	5786.0	5077.47	-5027.47
San Cristobal	7210.0	6387.0	-6337.0	6910.0	6098.45	-6048.45	6900.0	6088.94	-6038.94
Upper Basal Salina	8016.0	7189.0	-7139.0	8870.0	8037.67	-7987.67	8930.0	8097.35	-8047.35
Lower Basal Salina	8600.0	7773.0	-7723.0	-	-	-	-	-	-
Balcones	9300.0	8473.0	-8423.0	9685.0	8847.60	-8797.60	9685.0	8847.60	-8797.60
Final T.D.	9607.0	8780.0	-8730.0	9800.0	8961.60	-8911.60	9800.0	8961.60	-8911.60

STRATIGRAPHIC COLUMN

AGE			FORMATION	THICKNESS (ft)	LITHOLOGY	DESCRIPTION
CENOZOIC	TERTIARY	EOCENE	TALARA	1641.7		**Sandstone:** med gry, med dk gry, loc med lt gry, f-vf qtz grn, hyal, trnsl, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-mod consol, drty, w/glau & dk mnrls, p vis por. N.O.S. **Sand:** wh, 60% f-vf, 40% med, tr crs qtz grn, hyal, trnsl, sbang-sbrnd, wl srtd, w/dK lits & gn. **Claystone:** olv gry, brnsh gry, occ med dk gry, ea, blky-sbblky, loc sbtab, frm-mod frm, loc sft, miccarb, sli calc i/p. **Sand:** wh, f-vf qtz grn, hyal, trnsl, sbang-sbrnd, wl srtd, w/dk & gn litcs. **Sandstone:** med gry, med lt gry, f-vf qtz grn, hyal, trnsl, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod consol-mod fri, drty, w/glau & dk mnrls incl, p vis por. N.O. S. **Sand:** wh, fv-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, w/dk & grn lits. **Sandstone:** med dk gry, med gry, occ med lt gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-mod consol, drty, w/glau & dk mnrls incl, p vis por. N.O.S. **Claystone:** olv blk, brnsh blk, dk gry, ea, blky-sblky, mod frm-frm, loc sft, slty i/p, loc micmic, miccarb, sli calc. **Dolomite:** lt brnsh gry, lt olv gry, occ crm, ea, sbblky-blky, frm-mod hd, occ miccarb.
			CHACRA	1711.6		**Claystone:** olv blk, brnsh blk, dk gry, ea, blky-sblky, mod frm-frm, loc sft, slty i/p, loc micmic, miccarb, sli calc. **Siltstone:** med dk gry, dk gry, ea, blky-sbblky, loc amor, mod frm, micmic, miccarb, gr vf sst, sli calc. **Claystone:** med dk gry, dk gry, mnr olv blk, ea, blky-sbblky, sbtab i/p, amor, mod sft-sft, mod frm i/p, slty i/p, sol i/p, micmic, miccarb, n calc. **Sandstone:** : med dk gry, med gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, scs calc cmt, mod fri-fri, w/glauc & dk mnrls inclu, p vis por. N.O.S. **Sand:** wh, 60% f, 40% med, tr crs qtz gr, hyal, transl, sbang-sbround, wl srtd. **Siltstone:** med dk gry, med gry, ea, blky-sbblky, loc amor, frm-mod frm, micmic, miccarb, grad-vf sst, sli calc i/p. **Sandstone:** med gry, med dk gry, occ med lt gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, scs calc cmt, mod fri, loc mod consol, w/glauc & dk mnrls incl, p vis por. **Fluor:** 10% pin point pal yel nat fluor, slw, wk, ft, even, pal yelsh wh cut fluor, mlky wh res ring under U. V. lt; n res ring at nat l. **Siltstone:** med dk gry, dk gry, ea, blky-sbblky, loc amor, frm-mod frm, micmic, miccarb, grad-vf sst, sli calc i/p. **Claystone:** olv blk, med dk gry, brnsh gry, dk yelsh brwn, occ dk gry, ea, blky-sbblky, sbtab-sblam i/p, occ amor, mod frm-frm, occ sft, sol i/p, micmic, miccarb, calc. **Sandstone:** med gry, med lt gry, vf, mnr f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-fri, w/dk mnrls & glauc incl, p vis por. N.O.S. **Claystone:** med dk gry, brnsh gry, olv blk, occi dk yelwsh brwn, ea, blky-sbblky, sbtab i/p, occ sblam, amor, mod frm-frm, micmic, miccarb, sli calc i/p.
			RIO BRAVO	1477.9		**Sand:** wh, 50% vf, 50% f, tr m qtz gr, hyal, transl, sbang-sbrnd, wl srtd, w/dk lits. **Claystone:** med dk gry, olv gry, brnsh gry, loc dk gry, ea, sbblky-blky, loc sbtab, amor, mod sft-mod frm, occ sft, slty i/p, sli sol, micmic, miccarb, occ calc. **Siltstone:** med dk gry, dk gry, ea, sbblky-blky, amor, mod frm-frm, occ sft, micmic, miccarb, grad-vf sst, calc i/p. **Sandstone:** med gry, medi lt gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx i/p, calc cmt, fri-mod fri, w/dk mnrls incl, p vis por. N.O.S. **Fluor:** 35% pin point pal yel nat fluor, slw, wk, fnt, even, yelsh wh cut fluor, mlky wh res ring under U. V. lt, n res ring at nat lt. **Siltstone:** med gry, med dk gry, ea, blky-sbblky, loc sbtab, amor, frm-mod frm, micmic, miccarb, grad-vf sst, calc. **Claystone:** med dk gry, dk gry, ea, blky-sbblky, loc sbtab, occ sblam, amor, frm-mod frm, slty, loc sol, micmic, miccarb, n calc. **Sandstone:** med lt gry, lt gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, calc cmt, mod fri, loc mod consol, w/dk mnrls incl, p vis por. N.O.S.
			PALEGREDA	267.0		**Claystone:** dk gry, olv blk, occ med dk gry, ea, blky-sbblocky, sbtab i/p, occ sblam, amor, frm-mod frm, loc slty, micmic, miccarb, occ micpyr, n calc. **Siltstone:** med dk gry, dk gry, ea, blky-sbblky, sbtab i/p, occ amor, frm-mod frm, micmic, miccarb, grad-vf sst, sli calc. **Claystone:** dk gry, olv blk, occ med dk gry, grysh blk, ea, blky-sbblky, sbtab i/p, occ sblam, amor, frm-mod frm, slty i/p, micmic, miccarb, n calc.
			MOGOLLON	1000.3		**Sandstone:** med gry, med dk gry, med lt gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, scs calc cmt, mod fri-mod consol, drty, w/dk mnrls incl, p vis por. N.O.S. **Sand:** wh, 50% vf, 50% f, qtz gr, hyal, transl, sbang-sbrnd, wl srtd, w/dk lits. **Siltstone:** dk gry, dk gry, ea, sbblky, mnr blky, occ amor, mod frm-frm, micmic, miccarb, grad-vf sst, slty- n calc. **Sandstone:** med lt gry, lt gry, occ med gry, vf-f, tr m qtz gr, hyal, transl, sbang-sbrnd, wl srtd, calc cmt, mod fri, occ drty, occ micmic, w/dk mnrls incl, p vis por. **Claystone:** med dk gry, dk gry, loc olv gry, ea, sbblky-blky, loc sbtab, occ sblam, mod frm-frm, slty i/p, micmic, miccarb, n calc. **Sandstone:** med lt gry, med gry, occ lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtd, calc cmt, fri-mod fri, drty, occ miccarb, w/dk mnrls incl, p vis pory. **Fluor:** 20% pin point pal yel nat fluor, slw, wk, fnt, even, pal yelsh wh cut fluor, mlky wh res ring under U. V. lt, n res ring at nat lt. **Siltstone:** med dk gry, dk gry, ea, blky-sbblky, amor, mod frm-frm, micmic, miccarb, loc grad-vf sst, sli calc to n calc. **Sand:** wh, 50% vf-f, qtz gr, hyal, transl, sbang-sbrnd, wl srtd, w/dk lits.
			SAN CRISTOBAL	1939.2		**Claystone:** med dk gry, dk gry, occ brnsh gry, ea, blky-sbblky, loc sbtbab, occ sblam, frm-mod frm, occ slty, micmic, miccarb, sli calc-n calc. **Sandstone:** med lt gry, med gry, vf-f qtz gr, hyal, transl, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-mod consol, occ drty, w/dk mnrls incl, p vis por. N.O.S. **Claystone:** med dk gry, dk gry, occ grysh blk, blk, olv gry, ea, blky-sbblky, loc sbtab, occ sblam, frm-mod frm, occ vf, occ slty, micmic, miccarb, sli calc-n calc. **Siltstone:** med dk gry, med gry, ea, blky-sbblky, sbtab i/p, frm-mod frm, micmic, miccarb, grad-vf sst, calc. **Sandstone:** med gry, med dk gry, occ lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, fri-mod fri, drty, w/glauc & dk mnrls inclu, p vis por. N.O.S.
			UPPER BASAL SALINA	809.9		**Sand:** wh, vf-f, tr m qtz gr, hyal, transl, sbang-sbrnd, wl srtd, w/dk lits. **Sandstone:** med dk gry, med gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtd, arg marx, calc cmt, mod fri-fri, drty, w/glauc & dk mnrls incl, p vis por. N.O.S. **Siltstone:** med dk gry, mnr med gry, ea, blky-sbblky, amor, mod frm-frm, micmic, miccarb, grad-vf sst, sli calc. **Claystone:** dk gray, med dk gry, occ grysh blk, blk, ea, blky-sbblky, loc sbtab, occ sblam, frm-mod frm, occ vf, occ slty, micmic, miccarb, occ sli calc **Sandstone:** med lt gry, med gry, occ lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-fri, occ mod consol, drty i/p, w/dk mnrls incl, p vis por. N.O.S. **Siltstone:** med gry, med dk gry, ea, blky-sbblky, amor i/p, frm-mod frm, micmic, miccarb, grad-vf sst, calc **Claystone:** med dk gry, dk gry, occ olv gry, ea i/p, blky-sbblky, sbtab i/p, occ sblam, mod frm-frm, occ slty, micmic, miccarb, n calc-sli calc. **Sandstone:** med lt gry, med gry, occ lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtd, arg mtrx, calc cmt, mod fri-fri, occ drty, w/dk mnrls incl, p vis por. N.O.S.
		PALEOCENE	BALCONES	114.0		**Claystone:** dk gry, med dk gry, occ grysh blk, ea, blky-sbblky, loc sbtab, occ sblam, frm-mod frm, occ slty, micmic, miccarb, sli calc i/p. **Siltstone:** med gry, med dk gry, ea, blky-sbblky, loc amor, frm-mod frm, micmic, miccarb, occ micpyr, grad-vf sst, sli calc. **Claystone:** dk gry, med dk gry, mnr grysh blk, ea, blky-sbblky, sbtab i/p, occ sblam, frm-mod frm, occ vf, slty i/p, micmic, miccarb, n calc.

TOTAL DEPTH: 9800.00 ft. MD (RT), 8661.60 ft. TVD (RT)

STRATIGRAPHIC SEQUENCE

WELL: LO6-26XD

The Stratigraphy Column expected in this well was the same according to correlations with the original prognosis, consists of the following Formations and Members: Talara, Chacra, Rio Bravo, Palegreda, Mogollon, San Cristobal, Upper Basal Salina, Lower Basal Salina, Balcones of Tertiary age.

TGT LAB started logging into Talara Formation at 456 feet to the total depth on Balcones at 9800 feet MD; 8961.60 feet TVD.

CENOZOIC

TERTIARY

TALARA FORMATION — Interval: 0 to 1700 feet

The lithology in the upper section was conformed predominantly by Sand and Sandstone with some intercalations of Claystone.

Sand: white, 60% fine to very fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green.

Sandstone: medium gray, medium dark gray, locally medium light gray, fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals, poor visual porosity. No Oil Show.

Claystone: olive gray, brownish gray, occasionally medium dark gray, earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally soft, microcarbonaceous, slightly calcareous in part.

In the lower section the lithology was conformed mainly Claystone with some intercalations of Sandstone and small lents of Dolomite and Sand.

Claystone: olive black, olive gray, brownish gray, earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous.

Sandstone: medium dark gray, medium gray, occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.

Dolomite: light brownish gray, light olive gray, occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous.

Sand: white, fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics.

Accessories: Calcite, coal, glauconite, pyrite, microfossils.

CHACRA FORMATION — Interval: 1700 to 3470 feet

The lithology in this formation was conformed mainly by Claystone with some intercalations Siltstone, Sandstone, and thin horizons of Sand and Dolomite.

Claystone: olive black, dark gray, medium dark gray, earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part.

Sandstone: medium dark gray, medium gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

Dolomite: dark yellowish brown, minor pale yellowish brown, occasionally brownish gray, earthy, blocky to subblocky, subtabular in part, moderately firm to moderately hard, microcarbonaceous.

In the middle section the lithology was conformed mainly Claystone with some intercalations of Sandstone and thin lents of Siltstone and Sand.

Claystone: medium dark gray, dark gray, locally dark yellowish brown, earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.

Sandstone: medium gray, medium dark gray, occasionally medium light gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity.
Fluorescence: traces to 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light; non residual ring at natural light.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part.

Sand: white, fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

In the lower section:

Claystone: medium dark gray, brownish gray, locally olive gray, occasionally dark yellowish brown, earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous.

Siltstone: medium dark gray, dark gray, earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.

Sandstone: medium gray, medium light gray, occasionally light gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

Accessories: calcite, pyrite, limestone, gypsum, coal, glauconite, shell fragments, microfossils.

RIO BRAVO FORMATION — Interval: 3470 to 5500 feet

This formation is constituted by Sand, Sandstone, Siltstone and Claystone.

In the upper section:

Sand: white, 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Siltstone: medium dark gray, dark gray, earthy, subblocky to blocky, occasionally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.

Sandstone: medium gray, medium light gray, occasionally light gray, very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor to fair visual porosity.
Fluorescence: 10 - 25% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.

Claystone: dark gray, medium dark gray, earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.

In the middle section:

Sand: white, very fine, minor fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Sandstone: medium light gray, light gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.

Fluorescence: traces-20% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.

Siltstone: medium gray, medium dark gray, earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.

Claystone: dark gray, olive black, locally medium dark gray, earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.

In the lower section:

Claystone: dark gray, medium dark gray, occasionally olive gray, olive black, earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.

Sand: white, 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Sandstone: medium light gray, medium gray, minor light gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show.

Siltstone: dark gray, medium dark gray, earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Accessories: calcite, dolomite, pyrite, coal, slickenside, shell fragments.

PALEGREDA FORMATION — Interval: 5500 to 5810 feet

The lithology in this formation was conformed predominately by Claystone with some intercalations of Siltstone and small lents of Sandstone and Sand.

In the upper section the lithology was conformed mainly by Claystone intercalated with Siltstone.

Claystone: dark gray, medium dark gray, occasionally grayish black, olive black, earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous.

Siltstone: medium dark gray, dark gray, earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

In the lower section the lithology was conformed mainly by Claystone intercalated with Siltstone and small lents of Sandstone and Sand.

Claystone: dark gray, olive black, occasionally medium dark gray, grayish black, earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.

Siltstone: dark gray, olive black, earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly to calcareous.

Sandstone: medium dark gray, medium gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Accessories: calcite, microfossils.

MOGOLLON FORMATION — Interval: 5810 to 6910 feet

The lithology in this formation was conformed mainly by Sand, Sandstone, Claystone, and some intercalations of Siltstone.

In the upper section the lithology was conformed mainly by Sand, Sandstone and intercalated with Claystone and siltstone.

Sand: white, 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Sandstone: light gray, medium light gray, occasionally light brownish gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity.
Fluorescence: 5-20% pin point yellowish white natural fluorescence, slow, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.

Claystone: dark gray, medium dark gray, locally olive gray, occasionally brownish gray, earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.

Siltstone: medium dark gray, dark gray, occasionally medium gray, earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.

In the middle section the lithology was conformed by Sandstone, Claystone intercalated with Sand and some lens of Siltstone.

Sandstone: medium light gray, medium gray, occasionally light gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity.
Fluorescence: 10-50% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.

Claystone: dark gray, medium dark gray, locally olive gray, earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.

Sand: white, 60% fine. 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Siltstone: medium dark gray, dark gray, earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.

In the lower section the lithology was conformed by Sand, Claystone intercalated with Siltstone and Sandstone.

Sand: white, 70% very fine, 30% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.

Claystone: dark gray, medium dark gray, occasionally olive gray, grayish black, earthy in part, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.

Siltstone: medium dark gray, dark gray, occasionally medium gray, earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.

Sandstone: medium light gray, medium gray, occasionally light gray, light brownish gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.

Accessories: calcite, shell fragments, pyrite, coal, slickenside, dolomite.

SAN CRISTOBAL FORMATION — Interval: 6910 to 8870 feet

The lithology in this formation was conformed mainly by Claystone, intercalated with small lents of Siltstone, Sandstone and Limestone.

In the upper section the lithology was conformed by Claystone.

Claystone: medium dark gray, dark gray, occasionally brownish gray, earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.

In the middle section the lithology was conformed by Claystone, intercalated with some lens of Sandstone and Limestone.

Claystone: dark gray, medium dark gray, occasionally brownish gray, olive gray, grayish black, earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part.

Sandstone: medium light gray, light gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.

Limestone: brownish gray, olive gray, massive, blocky to subblocky, occasionally subplaty, firm to moderately hard, micritic in part.

In the lower section the lithology was conformed mainly by Claystone intercalated with small lents of Siltstone and Sandstone.

Claystone: medium dark gray, dark gray, occasionally grayish black, black, earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.

Sandstone: medium gray, medium dark gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.

Accessories: calcite, pyrite, microfossils, dolomite, glauconite.

UPPER BASAL SALINA — Interval: 8870 to 9685 feet

The lithology in this formation was conformed mainly by Sand, Claystone, Sandstone intercalated with small lents of Siltstone.

In the upper section the lithology was conformed by Sand, Sandstone intercalated with Claystone and Siltstone.

Sand: white, 50% medium, 50% very fine to fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted.

Sandstone: medium light gray, light gray, occasionally medium gray, fine to medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.

Claystone: dark gray, olive black, locally medium dark gray, occasionally grayish black, earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

In the lower section the lithology was conformed by Claystone, Sandstone, intercalated with Siltstone.

Claystone: medium dark gray, dark gray, occasionally olive gray, grayish black, earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.

Sandstone: medium gray, medium light gray, occasionally light gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.

Siltstone: medium gray, medium dark gray, earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Accessories: calcite, pyrite, slickenside, milonite, dolomite, limestone, glauconite.

BALCONES FORMATION — Interval: 9685 to 9800 feet

The lithology in this formation was conformed predominately by Claystone with some intercalations of Siltstone.

Claystone: dark gray, medium dark gray, occasionally olive gray, earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.

Siltstone: medium gray, medium dark gray, earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous.

Accessories: calcite, pyrite, dolomite.

T.G.T - LAB
REGISTROS GEOLÓGICOS

SAVIA PERÚ

LITHOLOGICAL DESCRIPTION

WELL: LO6-26XD

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
Started logging & Monitoring Data from 456 feet on December 07th, 2012 In Talara Formation.			
456 – 460		**Do not samples on shakers due to drilled with sea water.**	
460 – 470	40 30 30	**SANDSTONE:** medium gray (N5), medium light gray (N6), fine very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable to friable, with glauconite and dark minerals, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green. **CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** glauconite, calcite.	
470 – 500	60 20 20	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), fine very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable to friable, with glauconite and dark minerals, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.**	
500 – 530	70 20 10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), minor dark gray (N3), earthy, blocky to subblocky, subtabular in part, moderately firm to firm, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, slightly calcareous cement, moderately friable to moderately consolidated, occasionally friable, with glauconite and dark minerals, poor visual porosity. No Oil Show. **SAND:** white (N9), fine, minor very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, coal. **NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.**	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
530 – 560	50 30 20	**SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, slightly calcareous cement, moderately friable to moderately consolidated, occasionally friable, with glauconite and dark minerals, locally microcarbonaceous, poor visual porosity. No Oil Show. **CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), minor dark gray (N3), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous in part. **SAND:** white (N9), fine, minor very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.**	
560 – 590	60 30 10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), minor dark gray (N3), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, slightly calcareous cement, moderately friable to moderately consolidated, occasionally friable, with glauconite and dark minerals, locally microcarbonaceous, poor visual porosity. No Oil Show. **SAND:** white (N9), fine, minor very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, coal. **NOTE: SAMPLE CONTAMINATED WITH TRACES CEMENT.**	
590 – 620	50 30 20	**SAND:** white (N9), fine to very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, with glauconite and dark minerals, poor visual porosity. No Oil Show. **CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally soft, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, glauconite.	
620 – 650	50 40	**SAND:** white (N9), 60% fine to very fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green. **SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), fine to very fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to moderately consolidated, locally friable, dirty en part, with glauconite and dark minerals, poor visual porosity. No Oil Show.	
	10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, amorphous, firm to moderately firm, locally soft, microcarbonaceous, non calcareous. **Accessories:** calcite, glauconite.	
650 – 680	60	**SAND:** white (N9), 60% fine to very fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green.	
	30	**SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals, poor visual porosity. No Oil Show.	
	10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), occasionally medium dark gray (N4), earthy, subblocky, occasionally blocky, amorphous, firm to moderately firm, locally soft, microcarbonaceous, non calcareous. **Accessories:** calcite.	
680 – 710	60	**CLAYSTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky a subblocky, subtabular in part, amorphous, firm to moderately firm, locally soft, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	30	**SANDSTONE:** medium gray (N5), medium dark gray (N4), locally medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement in part, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics and green. **Accessories:** calcite, microfossils.	
710 – 740	60	**SAND:** white (N9), 60% fine to very fine, 40% medium, traces coarse, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark, green, brown lithics.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), locally medium dark gray (N4), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement in part, moderately consolidated to moderately friable, locally consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**CLAYSTONE:** olive black (5Y 2/1), brownish gray (5YR 4/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, subblocky a blocky, subtabular in part, amorphous, moderately firm	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, pyrite.	
740 – 770	40 30 30	**SAND:** white (N9), 50% fine, 30% very fine, 20% medium, quartz grain, hyaline, translucent, subangular to subrounded, fair sorted, with dark, green, brown lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), locally medium dark gray (N4), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement in part, moderately consolidated to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky a blocky, subtabular in part, amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
770 – 800	50 30 20	**SAND:** white (N9), 60% fine to very fine, 40% medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), medium dark gray (N4), earthy, blocky a subblocky, locally subtabular, occasionally amorphous, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
800 – 830	70 20 10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally medium dark gray (N4), earthy, blocky a subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, soft in part, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, locally micropyritic, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** calcite, pyrite.	
830 – 860	90	**CLAYSTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), locally medium dark gray (N4), earthy, blocky a subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, soft in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		part, micromicaceous, microcarbonaceous, calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, locally micropyritic, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** calcite, pyrite.	
860 – 890	100	**CLAYSTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky a subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, soft in part, micromicaceous, microcarbonaceous, calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
890 – 920	90	**CLAYSTONE:** olive black (5Y 2/1), brownish black (5YR 2/1), locally brownish gray (5YR 4/1), earthy, blocky a subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty in part, locally micropyritic, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** dolomite, pyrite, microfossils.	
920 – 950	90	**CLAYSTONE:** olive gray (5Y 4/1), olive black (5Y 2/1), brownish black (5YR 2/1), locally brownish gray (5YR 4/1), earthy, subblocky a blocky, subtabular in part, amorphous, moderately firm to moderately soft, occasionally firm, micromicaceous, microcarbonaceous, calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty in part, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), fine to very fine, traces medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark,green and brown lithics. **Accessories:** dolomite, calcite, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
950 – 980	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky a subblocky, subtabular in part, occasionally amorphous, moderately firm to moderately soft, occasionally firm, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gry (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty in part, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils, calcite.	
980 – 1010	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky a subblocky, locally subtabular, amorphous, firm to moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, calcareous. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils, pyrite, glauconite.	
1010 – 1040	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky a subblocky, locally subtabular, amorphous, firm to moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, calcareous. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils.	
1040 – 1070	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), brownish gray (5YR 4/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, calcareous. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils, glauconite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1070 – 1100	50 40 10	**CLAYSTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** dolomite, microfossils, glauconite.	
1100 – 1130	60 30 10	**CLAYSTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** microfossils, dolomite.	
1130 – 1160	70 30 Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, occasionally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark and green lithics. **Accessories:** microfossils, dolomite.	
1160 – 1190	70 30	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, occasionally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), olive gray (5Y 4/1), medium gray (N5), occasionally medium light gray (N6), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		consolidated to moderately friable, occasionally consolidated, dirty, occasionally micropyritic, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** microfossils, dolomite.	
1190 – 1220	80 20	**CLAYSTONE:** olive black (5Y 2/1), brownish gray (5YR 4/1),olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, occasionally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), olive gray (5Y 4/1), medium gray (N5), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** microfossils, dolomite.	
1220 – 1250	70 30 Tr	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), olive gray (5Y 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** microfossils, pyrite.	
1250 – 1280	80 20 Tr	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** microfossils.	
1280 – 1310	80 20	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), very fine to fine quartz grain,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** microfossils, dolomite.	
1310 – 1340	80 20	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils.	
1340 – 1370	90 10	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils.	
1370 – 1400	90 10	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils.	
1400 – 1430	90 10	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1430 – 1460	80 10 10	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** calcite.	
1460 – 1490	80 10 10	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** calcite.	
1490 – 1520	80 10 10	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** calcite.	
1520 – 1550	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** calcite.	
1550 – 1580	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, amorphous, moderately soft to moderately firm, locally soft, occasionally silty, micromicaceous, microcarbonaceous, calcareous. **SANDSTONE:** olive gray (5Y 4/1), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** light brownish gray (5YR 6/1), light olive gray (5Y 6/1), occasionally cream, earthy, subblocky a blocky, firm to moderately hard, occasionally microcarbonaceous. **Accessories:** calcite.	
1580 – 1610	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, locally soft, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to moderately hard, microcarbonaceous. **Accessories:** calcite.	
1610 – 1640	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), occasionally dark greenish gray (5G 4/1), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to moderately hard, microcarbonaceous. **Accessories:** calcite, pyrite.	
1640 – 1670	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	friable to friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **DOLOMITE:** dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to moderately hard, microcarbonaceous. **Accessories:** calcite.	
1670 – 1700	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, friable to moderately friable, dirty in part, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** dolomite, pyrite, microfossils.	
TOP CHACRA FM. AT 1700.0 ft. MD (RT); 1641.68 ft. TVD (RT)			
1700 – 1730	70 20 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), olive gray (5Y 4/1), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, friable to moderately friable, dirty in part, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** dolomite, pyrite, microfossils.	
1730 – 1760	70 20 10	**CLAYSTONE:** olive black (5Y 2/1), dark gray (N3), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), olive gray (5Y 4/1), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately hard, microcarbonaceous. **Accessories:** pyrite, microfossils, calcite.	
1760 – 1790	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), dark gray (N3), locally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm, occasionally moderately hard, microcarbonaceous. **Accessories:** pyrite, microfossils, calcite.	
1790 – 1820	80 20 Tr	**CLAYSTONE:** olive black (5Y 2/1), dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, moderately hard, occasionally firm, microcarbonaceous. **Accessories:** microfossils, pyrite, calcite.	
1820 – 1850	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, subblocky to subtabular, occasionally blocky, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, moderately hard, occasionally firm, microcarbonaceous. **Accessories:** microfossils, calcite.	
1850 – 1880	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, moderately hard, occasionally firm, microcarbonaceous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: microfossils, calcite.	
1880 – 1896	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, moderately hard, occasionally firm, microcarbonaceous. **Accessories:** microfossils, calcite.	
1896 – 1910	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), minor pale yellowish brown (10YR 6/2), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately hard, microcarbonaceous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH 40% CEMENT.**	
1910 – 1940	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone. **NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.**	
1940 – 1970	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH TRACES CEMENT.	
1970 – 2000	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), minor pale yellowish brown (10YR 6/2), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately hard, microcarbonaceous. **Accessories:** calcite, limestone.	
2000 – 2030	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **DOLOMITE:** dark yellowish brown (10YR 4/2), minor pale yellowish brown (10YR 6/2), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately hard, microcarbonaceous. **Accessories:** calcite, limestone.	
2030 – 2060	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **DOLOMITE:** dark yellowish brown (10YR 4/2), minor pale yellowish brown (10YR 6/2), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately hard, microcarbonaceous. **Accessories:** calcite, limestone.	
2060 – 2090	80 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), minor olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, amorphous, moderately soft to soft, moderately firm in part, silty in part, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Oil Show.	
	Tr	**SAND:** white (N9), medium to fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, locally rounded, well sorted.	
		Accessories: calcite, limestone.	
2090 – 2120	80	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	Tr	**DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm, occasionally moderately hard, microcarbonaceous.	
		Accessories: calcite, pyrite, limestone, gypsum.	
2120 – 2150	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, moderately soft, in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	**SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, pyrite, dolomite, abundant gypsum.	
2150 – 2180	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, moderately soft, soluble in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
		Accessories: calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2180 – 2210	80 10 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, moderately soft, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, microfossils. **NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.**	
2210 – 2240	80 10 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, locally firm, soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite.	
2240 – 2270	80 10 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, locally firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, coal, pyrite, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2270 – 2300	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, locally firm, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, limestone, microfossils.	
2300 – 2330	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, locally firm, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **DOLOMITE:** dark yellowish brown (10YR 4/2), occasionally pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm, occasionally moderately hard, microcarbonaceous. **Accessories:** calcite.	
2330 – 2360	80 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, amorphous, moderately firm to moderately soft, locally firm, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
2360 – 2390	70 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite, microfossils.	
2390 – 2420	70	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part.	
	10	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite, microfossils.	
2420 – 2450	60	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. **Fluorescence:** traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** abundant gypsum, calcite.	
2450 – 2480	70	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. **Fluorescence:** 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		white residual ring under U. V. light; non residual ring at natural light.	
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** abundant gypsum, calcite.	
2480 – 2510	70	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. **Fluorescence:** traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light; non residual ring at natural light.	TR
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** gypsum, calcite.	
2510 – 2540	60	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. **Fluorescence:** traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	TR
	30	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous.	
	10	**SAND:** white (N9), fine to very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** gypsum, pyrite, calcite.	
2540 – 2570	50	**SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SAND:** white (N9), fine to very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** gypsum, pyrite, calcite.	
2570 – 2600	70 20 10 Tr	**CLAYSTONE:** medium dark gray (N4), olive black (5Y 2/1), dark gray (N3), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** pyrite, calcite, microfossils.	
2600 – 2630	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), olive black (5Y 2/1), dark gray (N3), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, microfossils. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
2630 – 2660	90 10	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, microfossils, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
2660 – 2690	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** microfossils, calcite.	
2690 – 2720	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, microfossils.	
2720 – 2750	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, microfossils.	
2750 – 2780	100 Tr Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** glauconite, calcite, microfossils.	
2780 – 2810	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, occasionally glauconite inclusions, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** glauconite, calcite, microfossils.	
2810 – 2840	90 10	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** pyrite, glauconite, calcite, microfossils.	
2840 – 2870	80	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), occasionally dark gray (N3), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, locally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** dolomite, pyrite, calcite.	
2870 – 2900	80 20 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), occasionally dark gray (N3), earthy, blocky to subblocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, occasionally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, pyrite, calcite, glauconite, coal.	
2900 – 2930	80 10 10	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), occasionally dark gray (N3), earthy, blocky to subblocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, occasionally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, pyrite, calcite, glauconite.	
2930 – 2960	80 20 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), occasionally dark gray (N3), earthy, blocky to subblocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, occasionally soft, soluble in part, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately friable to friable, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, calcite, glauconite, pyrite.	
2960 – 2990	90 10 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular to sublaminar in part, occasionally amorphous, moderately firm to firm, occasionally soft, soluble in part, occasionally con glauconite inclusions, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, glauconite, calcite, microfossils, coal.	
2990 – 3020	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately firm to firm, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** dolomite, calcite.	
3020 – 3050	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite, microfossils.	
3050 – 3080	100 Tr	**CLAYSTONE:** olive black (5Y 2/1), medium dark gray (N4), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, slightly soluble, micromicaceous, microcarbonaceous, calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite, pyrite.	
3080 – 3110	100 Tr	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite, glauconite.	
3110 – 3140	100 Tr	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite, microfossils, pyrite.	
3140 – 3170	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, microfossils, glauconite.	
3170 – 3200	90 10	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite.	
3200 – 3230	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite.	
3230 – 3260	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** calcite, dolomite, pyrite.	
3260 – 3290	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, occasionally inclusion glauconite, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **Accessories:** dolomite, calcite, pyrite.	
3290 – 3320	60 20 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** dolomite, microfossils, pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
3320 – 3350	90 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** dolomite, pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
3350 – 3380	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
3380 – 3410	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, microfossils.	
3410 – 3440	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky, locally blocky, subtabular, occasionally sublaminar, amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, microfossils.	
3440 – 3470	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky, locally blocky, subtabular, occasionally sublaminar, amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, microfossils.	
3470 – 3500	100	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), locally olive gray (5Y 4/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
3500 – 3530	100	**CLAYSTONE:** medium dark gray (N4), brownish gray (5YR 4/1), locally olive gray (5Y 4/1), occasionally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite.	
3530 – 3560	100 Tr	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, occasionally calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** limestone, calcite.	
3560 – 3590	90 10 Tr	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, occasionally calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SAND:** white (N9), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** pyrite, gypsum, calcite.	
3590 – 3620	70 30	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, occasionally calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** gypsum, pyrite, calcite.	
3620 – 3650	70	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subtabular, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		part, soluble, micromicaceous, microcarbonaceous, occasionally calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: dolomite, pyrite, calcite.	
3650 – 3680	80	**CLAYSTONE:** olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, blocky tosubblocky, locally subtabular, occasionally amorphous, moderately soft to moderately firm, locally soft, silty in part, soluble, micromicaceous, microcarbonaceous, occasionally calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
		Accessories: dolomite, pyrite, calcite.	
3680 – 3710	80	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, subblocky to blocky, locally subtabular, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: dolomite, pyrite, calcite.	
3710 – 3740	70	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, subblocky to blocky, locally subtabular, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally calcareous.	
	30	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, shell fragments, dolomite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
TOP RIO BRAVO FM. AT 3740.0 ft. MD (RT); 3353.29 ft. TVD (RT)			
3740 – 3770	40 30 20 10	**SAND:** white (N9), 50% very fine, 50% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, subblocky to blocky, locally subtabular, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. **Accessories:** shell fragments, calcite, dolomite.	
3770 – 3800	40 30 20 10	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, subblocky to blocky, locally subtabular, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 50% very fine, 50% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** shell fragments, calcite, dolomite.	
3800 – 3830	50 30 20 Tr	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), brownish gray (5YR 4/1), locally dark gray (N3), earthy, subblocky to blocky, locally sublaminar, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% very fine, 40% fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, occasionally soft, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
3830 – 3860	50 20 20 10	**SAND:** white (N9), 60% fine, 40% very fine, traces medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, locally sublaminar, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, occasionally soft, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** pyrite, calcite, shell fragments.	
3860 – 3890	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally sublaminar, amorphous, moderately soft to moderately firm, occasionally soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, occasionally soft, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** pyrite, calcite, shell fragments.	
3890 – 3920	40 30 30	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky, occasionally blocky, amorphous, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, occasionally blocky, amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
3920 – 3950	50 30 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, occasionally blocky, amorphous, moderately soft to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, non calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
3950 – 3980	70 30 Tr Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite.	
3980 – 4010	40 30 30 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally glauconite inclusion, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4010 – 4040	40 30 30	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
4040 – 4070	60 40 Tr	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, occasionally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, occasionally subtabular, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
4070 – 4100	50 50 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4100 – 4130	50 50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm, locally moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4130 – 4160	50 20 20 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. **Fluorescence:** 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **Accessories:** pyrite, calcite, coal, shell fragments.	10
4160 – 4190	50 20 20 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 25% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous.	25

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, shell fragments. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL MUD.**	
4190 – 4220	60 20 10 10	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), light gray (N7), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 35% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL MUD.**	35
4220 – 4250	50 20 20 10	**SAND:** white (N9), 60% fine, 40% very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), light gray (N7), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 30% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL MUD.**	30
4250 – 4280	40 20	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, poor to fair	15

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		visual porosity. **Fluorescence:** 15% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** shell fragments, pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4280 – 4310	40 30 20 10	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 20% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	20
4310 – 4340	60 20 10	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **SANDSTONE:** light gray (N7), medium light gray (N6), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, poor to fair visual porosity.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Fluorescence: 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light; non residual ring at natural light.	
	10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4340 – 4370	60	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	10
	20	**SANDSTONE:** light gray (N7), medium light gray (N6), very light gray (N8), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, with dark minerals inclusion, occasionally microcarbonaceous, poor to fair visual porosity.	
	20	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, subblocky to blocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, calcareous in part. **Fluorescence:** 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	
	Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4370 – 4400	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	30	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4400 – 4430	30 30 20 20	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, occasionally friable, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4430 – 4460	40 30 20 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, ocasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4460 – 4490	40 20	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part. **SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately friable to friable, locally moderately consolidated, dirty in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4490 – 4520	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous in part.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, locally moderately consolidated, dirty in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
4520 – 4550	40	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	30	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty, local soluble, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
4550 – 4580	40	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		amorphous, firm to moderately firm, silty, local soluble, micromicaceous, microcarbonaceous, non calcareous.	
	40	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, pyrite.	
	50	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty, local soluble, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
4580 – 4610	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, pyrite.	
	60	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty, local soluble, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous.	
4610 – 4640	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4640 – 4670	60 30 10 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
4670 – 4700	40 30 20 10	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Fluorescence:** 20% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SAND:** white (N9), very fine, minor fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	20
4700 – 4730	40 20	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Fluorescence:** traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
4730 – 4760	70 20 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4760 – 4790	70 20 10 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
4790 – 4820	70 20 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4820 – 4850	70 20 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, sublaminar, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4850 – 4880	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, sublaminar, amorphous, moderately firm to firm, micromicaceous, silty in part, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, occasionally micropyritic, poor visual porosity. No Oil Show. **Accessories:** pyrite, calcite, dolomie.	
4880 – 4910	60 20 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, sublaminar, amorphous, moderately firm to firm, micromicaceous, silty in part, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
4910 – 4940	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
4940 – 4970	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
4970 – 5000	60 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite.	
5000 – 5010	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
5010 – 5020	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5020 – 5030	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, slickenside.	
5030 – 5040	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
5040 – 5050	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite, pyrite.	
5050 – 5060	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 Tr	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
5060 – 5070	70 20 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite, pyrite, coal.	
5070 – 5080	70 20 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite, pyrite.	
5080 – 5090	40 40	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slickenside, pyrite, dolomite.	
		NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.	
5090 – 5100	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, slickenside, pyrite, dolomite.	
5100 – 5110	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, dolomite, slickenside.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.	
5110 – 5120	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, dolomite, slickenside. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5120 – 5130	40 30 20 10	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, dolomite, slickenside. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5130 – 5140	30 30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** light gray (N7), medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	30	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, slickenside pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.	
5140 – 5150	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	30	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, slickenside pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.	
5150 – 5160	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	30	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5160 – 5170	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, dolomite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5170 – 5180	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, dolomite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5180 – 5190	50 20 20	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5190 – 5200	50 30 10 10	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5200 – 5210	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.	
5210 – 5220	60 30 10 Tr	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, occasionally microcarbonaceous, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5220 – 5230	50 30 10 10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5230 – 5240	40 30 20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), medium gray (N5), minor light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous cement, moderately friable to friable, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5240 – 5250	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH ($CACO_3$) CHEMICAL MUD.**	
5250 – 5260	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to friable, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
5260 – 5270	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
5270 – 5280	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
5280 – 5290	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
5290 – 5300	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), very fine, minor fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5300 – 5310	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
5310 – 5320	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
5320 – 5330	60 20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: calcite.	
5330 – 5340	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: calcite.	
5340 – 5350	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: calcite.	
5350 – 5360	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.
5360 – 5370	60	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.
5370 – 5380	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.
	20	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.
	Tr	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.
5380 – 5390	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, with dark

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite.	
5390 – 5400	80	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	**SAND:** white (N9), very fine to fine, traces medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite.	
5400 – 5410	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite.	
5410 – 5420	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, subblocky to blocky, locally subtabular, occasionally sub laminar, amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally dirty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, pyrite, slikenside.	
5420 - 5430	60	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, pyrite, slikenside.	
5430 – 5440	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sub laminar, amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine to fine, traces medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, slikenside.	
5440 – 5450	80	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, subblocky, locally blocky to subtabular, occasionally amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	**SAND:** white (N9), very fine, traces fine, quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	translucent, subangular to subrounded, well sorted. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5450 – 5460	70 10 10 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, subblocky, locally blocky to subtabular, occasionally amorphous, firm to moderately firm, occasionally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
5460 – 5470	60 20 10 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, subblocky, locally blocky to subtabular, occasionally amorphous, firm to moderately firm, locally soft, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
5470 – 5480	60 20 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular, in part, occasionally sublaminar, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, slikenside.	
5480 – 5490	80 10 10 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular, in part, occasionally sublaminar, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5490 – 5500	90 10 Tr Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular, in part, occasionally sublaminar, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
PALEGREDA FM TOP. AT 5500.0 ft. MD (RT); 4831.24 ft. TVD (RT)			
5500 – 5510	80 20 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular, in part, occasionally sublaminar, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5510 – 5520	80 20 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular, in part, occasionally sublaminar, amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5520 – 5530	70 30 Tr Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, traces fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	
5530 – 5540	70 30 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5540 – 5550	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5550 – 5560	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5560 – 5570	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
5570 – 5580	80	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N5), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
5580 – 5590	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5590 – 5600	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5600 – 5610	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5610 – 5620	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5620 – 5630	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5630 – 5640	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), occasionally grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5640 – 5650	100 Tr Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), occasionally grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5650 – 5660	80 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), occasionally grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5660 – 5670	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), occasionally grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5670 – 5680	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), olive black (5Y 2/1), occasionally grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, microfossils. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5680 – 5690	90 10 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately consolidated, locally moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5690 – 5700	90 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5700 – 5710	90	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **Accessories:** calcite.	
5710 – 5720	90 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **Accessories:** calcite.	
5720 – 5730	90 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite.	
5730 – 5740	80 20	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5740 – 5750	90 10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5750 – 5760	90	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		medium dark gray (N4), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5760 – 5770	80	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5770 – 5780	90	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5780 – 5790	90	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, subblocky, locally blocky to subtabular, occasionally sublaminar, amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** dark gray (N3), olive black (5Y 2/1), earthy, subblocky locally blocky to subtabular, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.	
5790 – 5800	70 10 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), dark gray (N4), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite. **NOTE:SAMPLE CONTAMINATED WITH CHEMICAL.**	
5800 – 5810	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), dark gray (N4), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
MOGOLLON FM TOP. AT 5810.00 ft. MD (RT); 5098.11 ft. TVD (RT)			
5810 – 5820	80 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), dark gray (N4), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5820 – 5830	70 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, scarse calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, shell fragments. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5830 – 5840	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 50% very fine, 50% fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, shell fragments, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5840 – 5850	60 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5850 – 5860	50	**SAND:** white (N9), 50% very fine, 50% fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky, minor blocky, subtabular in part, locally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, slickeside, shell fragments, coal. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5860 – 5870	60	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky, minor blocky, subtabular in part, locally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, slickenside, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5870 – 5880	60	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky, minor blocky, subtabular in part, locally sublaminar, amorphous, moderately firm to firm, silty in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite, slickenside, pyrite, coal.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5880 – 5890	50	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky, minor blocky, subtabular in part, locally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, locally moderately consolidated, dirty in part, micromicaceous in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite, slickenside.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5890 – 5898	70	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky, minor blocky, subtabular in part, locally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky, minor blocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement in part, moderately friable to friable, locally moderately consolidated, dirty in part, micromicaceous in part, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, slickenside. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5898 – 5900	60 30 10	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5900 – 5910	40 30 20 10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), locally light brownish gray (5YR 6/1), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, dirty in part, micromicaceous in part, occasionally micropyritic, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcareous fragments, slickenside, shell fragments, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5910 – 5920	60 20 20	**SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), locally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, micromicaceous in part, occasionally micropyritic, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcareous fragments, slickenside, shell fragments, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5920 – 5930	80 10 10 Tr	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), locally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, occasionally micromicaceous, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcareous fragments, shell fragments, pyrite, slickenside, **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5930 – 5940	40 30 20 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), occasionally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 20% pin point yellowish white natural fluorescence, slow, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous,	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, shell fragments, pyrite, **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5940 – 5950	30 30 20 20	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), occasionally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor to fair visual porosity. **Fluorescence:** 5% pin point yellowish white natural fluorescence, slow, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** shell fragments, calcite, pyrite, **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	5
5950 – 5960	40 20 20 20	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), occasionally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor to fair visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite, **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5960 – 5970	40 30 20 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** light gray (N7), medium light gray (N6), occasionally light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **Fluorescence:** traces pin point yellowish white natural fluorescence, slow, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite, **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	TR
5970 – 5980	40 30 20 10	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** pyrite, calcite, slickenside **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
5980 – 5990	40	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
5990 – 6000	40 30 20 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 50% fine, 50% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
6000 – 6010	50 30 10 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 50% fine, 50% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
6010 – 6020	60 30 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), 50% fine, 50% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6020 – 6030	40 30 20 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 50% fine, 50% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6030 – 6040	30 30	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.
	20	**SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite, shell fragments.
6040 – 6050	40	**SAND:** white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.
	20	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, shell fragments.
6050 – 6060	50	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. **Fluorescence:** 20% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.
	20	**SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: pyrite, calcite.	
6060 – 6070	30 30 20 20	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6070 – 6080	60 20 10 10	**SAND:** white (N9), 60% very fine, 40% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, amorphous, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6080 – 6090	50 30 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable, occasionally dirty, occasionally micromicaceous, locally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, coal.	
6090 – 6100	50 30 10 10	**SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, coal.	
6100 – 6110	40 30 20 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, coal.	
6110 – 6120	30	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		friable to moderately friable, occasionally dirty, occasionally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6120 – 6130	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6130 – 6140	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6140 – 6150	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6150 – 6160	40 30 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6160 – 6170	30 30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SAND:** white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: pyrite, calcite, dolomite.	
6170 – 6180	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6180 – 6190	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6190 – 6200	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: pyrite, calcite.	
6200 – 6210	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6210 – 6220	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark lithics. **Accessories:** pyrite, calcite.	
6220 – 6230	50 30 10 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6230 – 6240	50 30 10 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6240 – 6250	40 40 20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** pyrite, calcite.	
6250 – 6260	40 30 20 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6260 – 6270	40 40 10 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% very fine. 40% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
6270 – 6280	60 30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SAND:** white (N9), 60% very fine. 40% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6280 – 6290	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 60% very fine, 40% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6290 – 6300	50	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. **Fluorescence:** 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	10
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6300 – 6310	50 20 20 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. **Fluorescence:** 20% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	20
6310 – 6320	40 30 20 10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, dirty, occasionally microcarbonaceous, with dark minerals inclusion, poor visual porosity. **Fluorescence:** 20% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	20
6320 – 6330	60	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 50% pin point yellowish white natural fluorescence,	50

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	
	20	**SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
		Accessories: pyrite, calcite.	
6330 – 6340	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 40% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	40
	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6340 – 6350	50	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 20% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	20
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: pyrite, calcite.	
6350 – 6360	60	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 20% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
6360 – 6370	50 30 20	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, subblocky, locally blocky, subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	10
6370 – 6380	40 40 20	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	10
6380 – 6390	50 30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark lithics.	
	20	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
6390 – 6400	50	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	10
	30	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite.	
6400 – 6410	60	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally with dark minerals inclusion, fair visual porosity. No Oil Show.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
6410 – 6420	70	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, occasionally with dark minerals inclusion, fair visual porosity. No Oil Show. **Accessories:** calcite.	
6420 – 6430	50	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, occasionally with dark	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		minerals inclusion, fair visual porosity. No Oil Show.	
	30	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), occasionally grayish black (N2), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite.	
6430 – 6440	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, occasionally with dark minerals inclusion, fair visual porosity. No Oil Show.	
	30	**CLAYSTONE:** olive black (5Y 2/1), olive gray (5Y 4/1), locally dark gray (N3), occasionally grayish black (N2), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 70 %fine, 30% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite.	
6440 – 6450	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show.	
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 60 %fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite.	
6450 – 6460	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 60 %fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
6460 – 6470	50	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	10
	30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), 60 %fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite.	
6470 – 6480	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. **Fluorescence:** 10% pin point yellowish white natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light.	10
	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite.	
6480 – 6490	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show.	
	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite.	
6490 – 6500	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite.	
6500 – 6510	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite.	
6510 – 6520	70 20 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, slickenside.	
6520 – 6530	60 20 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, slickenside.	
6530 – 6540	70 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, fair visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, slickenside, pyirite.	
6540 – 6550	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, pyirite, slickenside.	
6550 – 6560	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SAND:** white (N9), fine to very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite.	
6560 – 6570	40	**SAND:** white (N9), 50% very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite.	
6570 – 6580	50 20 20 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
6580 – 6590	60 20 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), locally earthy, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
6590 – 6600	60 20 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
6600 – 6610	80 10 10 Tr	**CLAYSTONE:** medium dark gray (N4), locally brownish gray (5YR 4/1), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
6610 – 6620	80 10 10 Tr	**CLAYSTONE:** medium dark gray (N4), locally brownish gray (5YR 4/1), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
6620 – 6630	80 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SAND:** white (N9), very fine to fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, slickenside.	
6630 – 6640	60	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	20	**SAND:** white (N9), fine to very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, slickenside.	
6640 – 6650	50	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	30	**SAND:** white (N9), fine to very fine, quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite.	
6650 – 6660	70	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SAND:** white (N9), fine to very fine, quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite.	
6660 – 6670	40	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	40	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite.	
6670 – 6680	60	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
		Accessories: calcite.	
6680 – 6690	70	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, non calcareous.	
		Accessories: calcite.	
6690 – 6700	60	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, non calcareous.	
		Accessories: calcite.	
6700 – 6710	50	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	30	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, non calcareous.	
		Accessories: calcite, pyrite.	
6710 – 6720	50	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	30	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor to fair visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, non calcareous. **Accessories:** calcite, pyrite.	
6720 – 6730	70	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite.	
6730 – 6740	80	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, dolomite.	
6740 – 6750	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, dolomite, pyrite.	
6750 – 6760	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
		Accessories: calcite, dolomite, pyrite.	
6760 – 6770	80	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite	
6770 – 6780	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite.	
6780 – 6790	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite, pyrite.	
6790 – 6800	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
6800 – 6810	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
6810 – 6820	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
6820 – 6830	80	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
	10	**SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite.	
6830 – 6840	70 10 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SAND:** white (N9), fine to very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
6840 – 6850	60 20 10 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
6850 – 6860	90 10 Tr	**SAND:** white (N9), 70% very fine, 30% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** slickenside, calcite.	
6860 – 6870	50 20 20 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, abundant calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite.	
6870 – 6880	60 20 10 10	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, slickenside.	
6880 – 6890	50 30	**SAND:** white (N9), 50% very fine, 50% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite.	
6890 – 6900	40	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	40	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous.	
		Accessories: calcite.	
6900 – 6910	50	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), brownish gray (5YR 2/1), earthy in part, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous.	
	30	**SAND:** white (N9), 60% fine, 40% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
SAN CRISTOBAL FM TOP. AT 6910.00 ft. MD (RT); 6098.45 ft. TVD (RT)			
6910 – 6920	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 2/1), olive gray (5Y 4/1), earthy in part, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
6920 – 6930	100 Tr Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), brownish gray (5YR 2/1), earthy in part, subblocky to blocky, subtabular in part, locally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), light brownish gray (5YR 6/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement in part, moderately friable to friable, occasionally moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
6930 – 6940	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, pyrite.	
6940 – 6950	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), fine to very quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, pyrite.	
6950 – 6960	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
6960 – 6970	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, calcareous cement, friable to moderately friable, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous non calcareous. **Accessories:** calcite, pyrite.	
6970 – 6980	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous non calcareous. **Accessories:** calcite, pyrite, microfossils.	
6980 – 6990	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
6990 – 7000	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
7000 – 7010	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
7010 – 7020	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, locally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
7020 – 7030	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
7030 – 7040	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
7040 – 7050	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite, dolomite, limestone, microfossils.	
7050 – 7060	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite, limestone.	
7060 – 7070	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally brownish gray (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7070 – 7080	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, dolomite.	
7080 – 7090	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, microfossils.	
7090 – 7100	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite.	
7100 – 7110	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7110 – 7120	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, limestone, pyrite.	
7120 – 7130	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7130 – 7140	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7140 – 7150	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, limestone.	
7150 – 7160	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
7160 – 7170	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite.	
7170 – 7180	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7180 – 7190	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7190 – 7200	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, dolomite.	
7200 – 7210	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, dolomite.	
7210 – 7220	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, non calcareous. **Accessories:** calcite, pyrite.	
7220 – 7230	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite, limestone.	
7230 – 7240	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite.	
7240 – 7250	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7250 – 7260	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7260 – 7270	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7270 – 7280	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7280 – 7290	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
7290 – 7300	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
7300 – 7310	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
7310 – 7320	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite.	
7320 – 7330	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7330 – 7340	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7340 – 7350	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7350 – 7360	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7360 – 7370	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7370 – 7380	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), locally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, limestone, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7380 – 7390	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7390 – 7400	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, limestone. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7400 – 7410	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7410 – 7420	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7420 – 7430	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7430 – 7440	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7440 – 7450	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasional brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7450 – 7460	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7460 – 7470	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7470 – 7480	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, dolomite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7480 – 7490	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, dolomite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7490 – 7500	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, pyrite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7500 – 7510	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, pyrite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7510 – 7520	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, pyrite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7520 – 7530	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, pyrite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7530 – 7540	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, dolomite, limestone. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7540 – 7550	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7550 – 7560	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7560 – 7570	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7570 – 7580	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7580 – 7590	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7590 – 7600	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7600 – 7610	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** limestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7610 – 7620	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **LIMESTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), massive, blocky to subblocky, occasionally subplaty, firm to moderately hard, micritic in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7620 – 7630	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories: l**imestone, calcite, pyirte. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7630 – 7640	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** limestone, pyirte, calcite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7640 – 7650	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	**LIMESTONE:** brownish gray (5YR 4/1), olive gray (5Y 4/1), massive, blocky to subblocky, occasionally subplaty, firm to moderately hard, micritic in part. **Accessories:** pyirte, calcite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7650 – 7660	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), dark gray (N3), earthy, blocky to subblocky, amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous to non calcareous. **Accessories:** pyrite, limestone, calcite, microfossils. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7660 – 7670	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** pyirte, limestone, calcite.	
7670 – 7680	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous in part. **Accessories:** limestone, pyrite, calcite.	
7680 – 7690	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous to non calcareous. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.** **Accessories:** pyrite, calcite.	
7690 – 7700	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, limestone.	
7700 – 7710	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally brownish gray (5YR 4/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: pyrite, calcite, limestone, microfossils.	
7710 – 7720	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, microfossils, limestone.	
7720 – 7730	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, microfossils, coal.	
7730 – 7740	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, microfossils, dolomite.	
7740 – 7750	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, dolomite, microfossils, limestone.	
7750 – 7760	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** limestone, pyrite, calcite, microfossils.	
7760 – 7770	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** pyrite, calcite, microfossils.	
7770 – 7780	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** pyrite, calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7780 – 7790	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** pyrite, calcite, dolomite.	
7790 – 7800	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, subblocky to blocky, locally subtabular, sublaminar in part, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7800 – 7810	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), grayish black (N2), locally black (N1), earthy, occasionally rough, subblocky to blocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, microfossils, dolomite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7810 – 7820	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), grayish black (N2), locally black (N1), earthy, occasionally rough, subblocky to blocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, microfossils, dolomite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7820 – 7830	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), grayish black (N2), locally black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7830 – 7840	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite, dolomite.	
7840 – 7850	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7850 – 7860	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SANPLE CONTAMINATED WITH CHEMICAL.	
7860 – 7870	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7870 – 7880	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7880 – 7890	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7890 – 7900	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7900 – 7910	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
7910 – 7920	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally moderately hard, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7920 – 7930	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally moderately hard, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, dolomite, pyrite.	
7930 – 7940	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, occasionally rough, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally moderately hard, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, pyrite.	
7940 – 7950	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** dolomite, calcite, pyrite.	
7950 – 7960	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** dolomite, calcite, pyrite.	
7960 – 7970	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** dolomite, calcite, pyrite.	
7970 – 7980	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** dolomite, calcite, pyrite.	
7980 – 7990	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SILTSTONE:** medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** dolomite, calcite, pyrite, microfossils.	
7990 – 8000	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** dolomite, calcite, pyrite, microfossils.	
8000 – 8010	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, pyrite, dolomite.	
8010 – 8020	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, subblocky to blocky, occasionally subtabular, sublaminar, firm to moderately firm,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally very firm, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, pyrite, dolomite.	
8020 – 8030	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally very firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
8030 – 8040	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally very firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
8040 – 8050	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
8050 – 8060	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
8060 – 8070	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
8070 – 8080	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, microfossils, pyrite.	
8080 – 8090	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
8090 – 8100	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8100 – 8110	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8110 – 8120	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite.	
8120 – 8130	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8130 – 8140	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite.	
8140 – 8150	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8150 – 8160	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally very firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
8160 – 8170	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite.	
8170 – 8180	80 20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), very fine to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	**SAND:** white (N9), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** calcite, dolomite, pyrite.	
8180 – 8190	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
8190 – 8200	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
8200 – 8210	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	10	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8210 – 8220	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8220 – 8230	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally micromicaceous, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
8230 – 8240	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8240 – 8250	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8250 – 8260	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8260 – 8270	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8270 – 8280	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. **Accessories:** calcite, dolomite.	
8280 – 8290	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8290 – 8300	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8300 – 8310	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, microfossils, pyrite.	
8310 – 8320	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite, microfossils.	
8320 – 8330	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8330 – 8340	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8340 – 8350	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. **Accessories:** calcite, dolomite, pyrite.	
8350 – 8360	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8360 – 8370	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8370 – 8380	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8380 – 8390	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
8390 – 8400	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
8400 – 8410	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8410 – 8420	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8420 – 8430	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8430 – 8440	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8440 – 8450	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
8450 – 8460	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8460 – 8470	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8470 – 8480	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. **Accessories:** calcite, dolomite.	
8480 – 8490	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), olive gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8490 – 8500	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, dolomite.	
8500 – 8510	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, dolomite.	
8510 – 8520	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, dolomite.	
8520 – 8530	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), black (N1), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous. **Accessories:** calcite, dolomite.	
8530 – 8540	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarse argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
8540 – 8550	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite.	
8550 – 8560	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite. **NOTE: SANPLE CONTAMINATED WITH CHEMICAL.**	
8560 – 8570	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, pyrite.	
8570 – 8580	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
8580 – 8590	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite.	
8590 – 8600	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, occasionally micropyritic, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** pyrite, calcite, dolomite.	
8600 – 8610	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy in part, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, occasionally micropyritic, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8610 – 8620	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, occasionally micropyritic, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite.	
8620 – 8630	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, occasionally micropyritic, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, pyrite, microfossils.	
8630 – 8640	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally glauconite inclusion, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite, microfossils.	
8640 – 8650	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally glauconite inclusion, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, pyrite.	
8650 – 8660	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally glauconite inclusion, slightly calcareous to non calcareous. **Accessories:** calcite, dolomite, microfossils.	
8660 – 8670	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally glauconite inclusion, slightly calcareous to non calcareous. **Accessories:** glauconite, calcite, pyrite, microfossils.	
8670 – 8680	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, occasionally glauconite inclusion, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, glauconite.	
8680 – 8690	80 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, occasionally glauconite inclusion, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sandstone, calcareous. **Accessories:** calcite, glauconite.	
8690 – 8700	80 10 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, occasionally glauconite inclusion, slightly calcareous in part. **SANDSTONE:** medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, glauconite.	
8700 – 8710	70 20 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, occasionally micropyritic, occasionally glauconite inclusion, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, glauconite, pyrite, microfossils.	
8710 – 8720	60 30 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium gray (N5), medium dark gray (N4), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, glauconite, microfossils.	
8720 – 8730	60	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	30	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, glauconite, pyrite.	
8730 – 8740	70	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	20	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, glauconite, pyrite.	
8740 – 8750	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, glauconite.	
8750 – 8760	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, pyrite.	
8760 – 8770	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, dolomite, glauconite, pyrite.	
8770 – 8780	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium dark gray (N4), medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, limestone, glauconite.	
8780 – 8790	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
		Accessories: calcite, limestone, glauconite, pyrite.	
8790 – 8800	80	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, limestone, glauconite, pyrite.	
8800 – 8810	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, glauconite, pyrite.	
8810 – 8820	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, occasionally subtabular, sublaminar, firm, locally moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, dolomite, glauconite.	
8820 – 8830	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, occasionally subtabular, sublaminar, firm, locally moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, dolomite, glauconite.	
8830 – 8840	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, occasionally subtabular, sublaminar, firm, locally moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, limestone, glauconite.	
8840 – 8850	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, occasionally subtabular, sublaminar, firm, locally moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, glauconite.	
8850 – 8860	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, occasionally subtabular, sublaminar, firm, locally moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** dolomite, calcite, glauconite.	
8860 – 8870	50 30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** abundant glauconite, calcite, pyrite.	
UPPER BASAL SALINA FM TOP. AT 8870.00 ft. MD (RT); 8037.67 ft. TVD (RT)			
8870 – 8880	60 30 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** abundant glauconite, calcite.	
8880 – 8890	50 30 20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky, locally blocky, subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **SANDSTONE:** medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** glauconite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
8890 – 8900	40 30 30	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), earthy, subblocky, locally blocky, subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SANDSTONE:** medium dark gray (N4), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty, with glauconite and dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. **Accessories:** glauconite, calcite.	
8900 – 8910	60	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	10	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, slikenside, glauconite, pyrite.	
8910 – 8920	40	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), occasionally grayish black (N2), medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	40	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	20	**SAND:** white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, glauconite, slikenside, pyrite.	
8920 – 8930	40	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**SAND:** white (N9), 50% fine, 30% very fine, 20% medium, quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, glauconite, slikenside, pyrite.	
8930 – 8940	50	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine to medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	**SAND:** white (N9), 60% medium, 40% very fine to fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted.	
	20	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. **Accessories:** calcite, pyrite, glauconite.	
8940 – 8950	60 30 10	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine to medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SAND:** white (N9), 50% medium, 50% very fine to fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted. **Accessories:** calcite, pyrite, glauconite.	
8950 – 8960	50 30 20	**SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine to medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **SAND:** white (N9), 50% medium, 40% coarse to very coarse, 10% conglomerated quartz grain, hyaline, translucent, subangular, menor angular, locally subrounded, locally, fair sorted. **CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **Accessories:** calcite, pyrite.	
8960 – 8970	60 20 20	**SAND:** white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, occasionally friable, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** milonite, slickenside, pyrite.	
8970 – 8980	70 20	**SAND:** white (N9), 60% fine, 30% very fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, occasinally angular, well sorted. **SANDSTONE:** medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine very to fine quartz grain, hyaline, subangular	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **Accessories:** abundant milonite, slickenside, pyrite.	
8980 – 8990	90	**SAND:** white (N9), 60% very fine, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted.	
	10	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **Accessories:** abundant milonite, slickenside, pyrite.	
8990 – 9000	40	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), earthy, subblocky to blocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	30	**SAND:** white (N9), 60% fine, 30% very fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular, minor angular, locally subrounded, well sorted.	
	30	**SANDSTONE:** medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, milonite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH (LCM) CHEMICAL.**	
9000 – 9010	70	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	20	**SAND:** white (N9), light gray (N7), 40% fine, 40% medium, 20% coarse to very coarse, traces conglomerated quartz grain, hyaline, translucent, subangular to angular, locally subrounded, fair sorted.	
	10	**SANDSTONE:** medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, milonite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9010 – 9020	50	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark gray (N4), earthy, subblocky to blocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	30	**SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular, minor angular, locally subrounded, well sorted.	
	10	**SANDSTONE:** medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium dark gray (N4), minor medium gray (N5), earthy, subblocky to blocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: milonite, calcite, pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9020 – 9030	40	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	30	**SILTSTONE:** medium dark gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	**SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular, minor angular, locally subrounded, well sorted.	
	10	**SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: milonite, calcite, pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9030 – 9040	40	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	40	**SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	**SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	porosity. No Oil Show. **SAND:** white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular, minor angular, locally subrounded, well sorted. **Accessories:** calcite, pyrite.	
9040 – 9050	80 20 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9050 – 9060	80 20 Tr	**CLAYSTONE:** dark gray (N3), olive black (5Y 2/1), locally medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9060 – 9070	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusion, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		porosity. No Oil Show. **Accessories:** milonite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9070 – 9080	80 20 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, locally friable, locally dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** milonite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9080 – 9090	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, locally friable, locally dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** milonite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9090 – 9100	90 10 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm, locally moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, locally friable, locally dirty, occasionally micropyritic, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** milonite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9100 – 9110	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm, locally moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** milonite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9110 – 9120	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm, locally moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **Accessories:** pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9120 – 9130	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SILTSTONE:** medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9130 – 9140	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9140 – 9150	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, occasionally slightly calcareous.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), locally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9150 – 9160	90	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous.	
	Tr	**SANDSTONE:** medium gray (N5), medium light gray (N6), locally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite, dolomite, pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9160 – 9170	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, subblocky, locally blocky to subtabular, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous.	
	Tr	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous.	
		Accessories: calcite, dolomite, pyrite.	
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
9170 – 9180	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), black (N1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9180 – 9190	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9190 – 9200	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** pyrite, calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9200 – 9210	80 20	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), brownish black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SANDSTONE:** medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally consolidated, locally, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9210 – 9220	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), brownish black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally consolidated, locally, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9220 – 9230	80	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally consolidated, locally, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9230 – 9240	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, occasionally slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally consolidated, locally, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9240 – 9250	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally consolidated, locally, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
9250 – 9260	100 Tr	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9260 – 9270	90 10	**CLAYSTONE:** medium dark gray (N4), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, firm to moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite.	
9270 – 9280	60 30 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite.	
9280 – 9290	50 40 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite.	
9290 – 9300	60 30 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, slickendide, milonite.	
9300 – 9310	60	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
		Accessories: calcite.	
9310 – 9320	90	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
		Accessories: calcite.	
9320 – 9330	70	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
		Accessories: calcite, slickenside.	
9330 – 9340	70	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, slickenside, pyrite.	
9340 – 9350	60	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	30	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, slickenside, pyrite, milonite, dolomite.	
9350 – 9360	90	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, slickenside.	
9360 – 9370	90	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous.	
	10	**SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		poor visual porosity. No Oil Show. **Accessories:** calcite.	
9370 – 9380	60 30 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally moderately consolidated, dirty in part, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **Accessories:** calcite, slickenside.	
9380 – 9390	70 20 10 Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite, milonite.	
9390 – 9400	60 30 10 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SAND:** white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. **Accessories:** calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
9400 – 9410	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
9410 – 9420	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slickenside.	
9420 – 9430	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **SILTSTONE:** medium dark gray (N4), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, dolomite.	
9430 – 9440	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **Accessories:** calcite, dolomite, pyrite.	
9440 – 9450	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **Accessories:** calcite, dolomite, pyrite.	
9450 – 9460	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **Accessories:** calcite, dolomite, pyrite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9460 – 9470	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9470 – 9480	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, slickenside. **NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.**	
9480 – 9490	100 Tr Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **SILTSTONE:** medium dark gray (N4), occasionally medium gray (N5), earthy, subblocky to blocky, amorphous in part, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
9490 – 9500	80 20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, pyrite.	
9500 – 9510	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite, slickenside.	
9510 – 9520	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
9520 – 9530	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slickenside.	
9530 – 9540	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9540 – 9550	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **Accessories:** calcite, pyrite.	
9550 – 9560	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), grayish black (N2), earthy in part, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, dolomite.	
9560 – 9570	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite.	
9570 – 9580	80 20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, pyrite, slikenside.	
9580 – 9590	80	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	**SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slikenside.	
9590 – 9600	80 20	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slikenside, limestone.	
9600 – 9610	90 10	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite.	
9610 – 9620	100 Tr	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **SANDSTONE:** medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. **Accessories:** calcite, slikenside.	
9620 – 9630	100	**CLAYSTONE:** medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
9630 – 9640	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
9640 – 9650	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
9650 – 9660	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
9660 – 9670	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
9670 – 9680	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. **Accessories:** calcite.	
9680 – 9690	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
BALCONES FM TOP. AT 9685.00 ft. MD (RT); 8847.60 ft. TVD (RT)			
9690 – 9700	100 Tr	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous. **Accessories:** dolomite, calcite.	
9700 – 9710	90 10	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **SILTSTONE:** medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, firm to moderately firm, micromicaceous, microcarbonaceous, occasionally micropyritic, grading to very fine sandstone, slightly calcareous. **Accessories:** dolomite, calcite.	
9710 – 9720	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally moderately soft, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, dolomite.	
9720 – 9730	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
9730 – 9740	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally olive gray (5Y 4/1), grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite.	
9740 – 9750	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
9750 – 9760	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** pyrite, calcite.	
9760 – 9770	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally very firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** pyrite, calcite.	
9770 – 9780	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, slightly calcareous in part. **Accessories:** calcite, pyrite.	
9780 – 9790	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), minor grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally very firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
9790 – 9800	100	**CLAYSTONE:** dark gray (N3), medium dark gray (N4), minor grayish black (N2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, firm to moderately firm, occasionally very firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. **Accessories:** calcite, pyrite.	
FINAL TOTAL DEPTH 9800.0 ft. MD(RT); 8961.60 ft. TVD(RT)			

T.G.T - LAB
REGISTROS GEOLÓGICOS

SAVIA PERÚ

WELL: LO6-26XD

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
TALARA Fm.							
474	7	0,21	21	0	0	0	0
475	8	0,20	20	0	0	0	0
476	8	0,25	25	0	0	0	0
477	11	0,34	34	0	0	0	0
478	17	0,41	41	0	0	0	0
479	12	0,18	18	0	0	0	0
480	14	0,58	58	0	0	0	0
481	10	0,52	52	0	0	0	0
482	12	0,55	55	0	0	0	0
483	8	0,39	39	0	0	0	0
484	7	0,40	40	0	0	0	0
485	7	0,40	40	0	0	0	0
486	5	0,40	40	0	0	0	0
487	7	0,48	48	0	0	0	0
488	9	0,50	50	0	0	0	0
489	9	0,56	56	0	0	0	0
490	13	0,57	57	0	0	0	0
491	11	0,76	76	0	0	0	0
492	12	1,39	139	0	0	0	0
493	3	0,53	53	0	0	0	0
494	11	0,35	35	0	0	0	0
495	8	0,45	45	0	0	0	0
496	7	0,78	78	0	0	0	0
497	6	0,69	69	0	0	0	0
498	8	0,84	84	0	0	0	0
499	8	0,65	65	0	0	0	0
500	8	1,10	110	0	0	0	0
501	10	1,36	136	0	0	0	0
502	14	1,83	183	0	0	0	0
503	7	1,08	108	0	0	0	0
504	10	1,08	108	0	0	0	0
505	9	1,04	104	0	0	0	0
506	10	1,37	137	0	0	0	0
507	10	0,82	82	0	0	0	0
508	9	0,87	87	0	0	0	0
509	8	0,49	49	0	0	0	0
510	7	0,48	48	0	0	0	0
511	7	0,76	76	0	0	0	0
512	8	0,76	76	0	0	0	0
513	9	0,55	55	0	0	0	0
514	8	0,48	48	0	0	0	0
515	8	0,40	40	0	0	0	0
516	3	0,41	41	0	0	0	0
517	8	0,43	43	0	0	0	0
518	9	0,45	45	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
519	9	0,50	50	0	0	0	0
520	10	0,58	58	0	0	0	0
521	13	0,66	66	0	0	0	0
522	6	0,51	51	0	0	0	0
523	9	0,62	62	0	0	0	0
524	5	0,79	79	0	0	0	0
525	6	0,61	61	0	0	0	0
526	7	0,30	30	0	0	0	0
527	7	0,42	42	0	0	0	0
528	8	0,29	29	0	0	0	0
529	9	0,33	33	0	0	0	0
530	3	0,32	32	0	0	0	0
531	7	0,35	35	0	0	0	0
532	5	0,34	34	0	0	0	0
533	14	0,36	36	0	0	0	0
534	15	0,39	39	0	0	0	0
535	14	0,41	41	0	0	0	0
536	13	0,33	33	0	0	0	0
537	11	0,39	39	0	0	0	0
538	12	0,91	91	0	0	0	0
539	9	0,81	81	0	0	0	0
540	9	0,54	54	0	0	0	0
541	9	0,36	36	0	0	0	0
542	12	0,64	64	0	0	0	0
543	9	0,81	81	0	0	0	0
544	3	0,33	33	0	0	0	0
545	8	0,37	37	0	0	0	0
546	8	0,47	47	0	0	0	0
547	8	0,39	39	0	0	0	0
548	10	0,41	41	0	0	0	0
549	9	0,42	42	0	0	0	0
550	11	0,69	69	0	0	0	0
551	10	0,65	65	0	0	0	0
552	6	0,56	52	2	0	0	0
553	9	0,44	44	0	0	0	0
554	11	0,58	58	0	0	0	0
555	10	0,93	93	0	0	0	0
556	10	1,02	102	0	0	0	0
557	8	1,00	100	0	0	0	0
558	12	0,91	91	0	0	0	0
559	11	1,19	119	0	0	0	0
560	8	1,36	136	0	0	0	0
561	7	0,81	81	0	0	0	0
562	9	0,70	70	0	0	0	0
563	9	0,90	90	0	0	0	0
564	10	1,07	107	0	0	0	0
565	9	0,93	93	0	0	0	0
566	8	0,71	71	0	0	0	0
567	12	0,76	76	0	0	0	0
568	16	1,24	124	0	0	0	0
569	17	1,55	155	0	0	0	0
570	14	1,60	160	0	0	0	0
571	11	1,15	115	0	0	0	0
572	10	0,78	78	0	0	0	0
573	11	0,80	80	0	0	0	0
574	8	0,90	90	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
575	10	0,78	78	0	0	0	0
576	12	0,75	75	0	0	0	0
577	11	0,60	60	0	0	0	0
578	12	0,70	70	0	0	0	0
579	12	0,76	76	0	0	0	0
580	12	0,97	97	0	0	0	0
581	10	0,91	91	0	0	0	0
582	9	0,76	76	0	0	0	0
583	8	0,61	61	0	0	0	0
584	9	0,73	73	0	0	0	0
585	8	0,93	93	0	0	0	0
586	4	0,61	61	0	0	0	0
587	8	0,48	48	0	0	0	0
588	12	0,61	61	0	0	0	0
589	11	0,84	84	0	0	0	0
590	9	0,86	86	0	0	0	0
591	8	0,71	71	0	0	0	0
592	9	0,71	71	0	0	0	0
593	8	0,99	99	0	0	0	0
594	8	1,09	109	0	0	0	0
595	7	1,20	120	0	0	0	0
596	10	1,47	147	0	0	0	0
597	10	1,94	194	0	0	0	0
598	11	2,43	243	0	0	0	0
599	10	2,34	234	0	0	0	0
600	13	1,62	162	0	0	0	0
601	13	1,86	186	0	0	0	0
602	9	1,33	133	0	0	0	0
603	8	1,41	141	0	0	0	0
604	13	0,52	52	0	0	0	0
605	12	1,13	113	0	0	0	0
606	13	0,88	88	0	0	0	0
607	11	0,73	73	0	0	0	0
608	12	0,73	73	0	0	0	0
609	9	0,51	51	0	0	0	0
610	11	0,72	72	0	0	0	0
611	14	0,80	80	0	0	0	0
612	3	0,73	73	0	0	0	0
613	12	0,70	70	0	0	0	0
614	12	0,76	76	0	0	0	0
615	14	0,89	89	0	0	0	0
616	7	0,72	72	0	0	0	0
617	8	0,58	58	0	0	0	0
618	9	0,51	51	0	0	0	0
619	5	0,39	39	0	0	0	0
620	2	0,31	31	0	0	0	0
621	2	0,39	39	0	0	0	0
622	2	0,25	25	0	0	0	0
623	3	0,49	49	0	0	0	0
624	3	0,50	50	0	0	0	0
625	17	0,59	59	0	0	0	0
626	18	1,37	137	0	0	0	0
627	25	1,81	181	0	0	0	0
628	26	2,25	225	0	0	0	0
629	20	2,36	236	0	0	0	0
630	21	2,15	215	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
631	21	1,99	199	0	0	0	0
632	20	1,83	183	0	0	0	0
633	20	1,77	177	0	0	0	0
634	15	1,99	199	0	0	0	0
635	4	1,33	133	0	0	0	0
636	4	0,74	74	0	0	0	0
637	10	1,03	103	0	0	0	0
638	20	1,56	156	0	0	0	0
639	23	1,73	173	0	0	0	0
640	20	1,58	158	0	0	0	0
641	17	1,44	144	0	0	0	0
642	24	1,81	181	0	0	0	0
643	21	1,89	189	0	0	0	0
644	21	1,94	194	0	0	0	0
645	14	1,87	187	0	0	0	0
646	4	1,66	166	0	0	0	0
647	2	0,48	48	0	0	0	0
648	1	0,26	24	1	0	0	0
649	2	0,19	19	0	0	0	0
650	15	0,39	39	0	0	0	0
651	5	0,39	39	0	0	0	0
652	3	0,50	50	0	0	0	0
653	7	0,60	60	0	0	0	0
654	12	0,73	73	0	0	0	0
655	10	0,80	80	0	0	0	0
656	12	1,09	109	0	0	0	0
657	8	1,09	109	0	0	0	0
658	8	0,91	91	0	0	0	0
659	12	1,13	113	0	0	0	0
660	4	0,86	86	0	0	0	0
661	6	0,79	79	0	0	0	0
662	5	0,60	60	0	0	0	0
663	5	0,57	57	0	0	0	0
664	7	0,70	70	0	0	0	0
665	13	0,68	68	0	0	0	0
666	8	0,73	73	0	0	0	0
667	5	0,87	87	0	0	0	0
668	13	1,00	100	0	0	0	0
669	16	1,10	110	0	0	0	0
670	14	0,97	97	0	0	0	0
671	17	1,19	119	0	0	0	0
672	17	1,21	121	0	0	0	0
673	14	1,16	116	0	0	0	0
674	16	1,17	117	0	0	0	0
675	14	1,48	148	0	0	0	0
676	29	1,49	149	0	0	0	0
677	22	1,57	157	0	0	0	0
678	23	1,62	162	0	0	0	0
679	19	1,34	134	0	0	0	0
680	30	0,97	97	0	0	0	0
681	28	1,63	163	0	0	0	0
682	21	1,65	165	0	0	0	0
683	21	1,58	158	0	0	0	0
684	21	1,54	155	0	0	0	0
685	16	1,76	176	0	0	0	0
686	24	2,36	236	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
687	21	2,33	233	0	0	0	0
688	22	2,29	229	0	0	0	0
689	20	1,89	189	0	0	0	0
690	21	1,89	189	0	0	0	0
691	21	1,82	182	0	0	0	0
692	26	2,03	203	0	0	0	0
693	27	2,47	247	0	0	0	0
694	23	2,84	284	0	0	0	0
695	27	2,18	218	0	0	0	0
696	11	2,05	205	0	0	0	0
697	19	1,45	145	0	0	0	0
698	5	2,56	256	0	0	0	0
699	5	1,51	151	0	0	0	0
700	3	1,04	104	0	0	0	0
701	16	1,32	132	0	0	0	0
702	14	1,81	181	0	0	0	0
703	11	2,13	213	0	0	0	0
704	11	1,08	108	0	0	0	0
705	15	1,14	114	0	0	0	0
706	17	1,71	171	0	0	0	0
707	19	2,04	204	0	0	0	0
708	24	2,29	229	0	0	0	0
709	21	2,21	221	0	0	0	0
710	15	1,64	164	0	0	0	0
711	17	1,84	184	0	0	0	0
712	16	1,72	172	0	0	0	0
713	14	2,03	203	0	0	0	0
714	17	2,78	278	0	0	0	0
715	15	2,65	265	0	0	0	0
716	20	2,54	254	0	0	0	0
717	17	2,09	209	0	0	0	0
718	22	2,09	209	0	0	0	0
719	41	2,03	203	0	0	0	0
720	27	2,12	212	0	0	0	0
721	20	2,34	234	0	0	0	0
722	4	3,14	314	0	0	0	0
723	13	2,48	248	0	0	0	0
724	22	2,42	242	0	0	0	0
725	23	3,22	322	0	0	0	0
726	34	4,52	452	0	0	0	0
727	19	5,66	566	0	0	0	0
728	30	4,93	493	0	0	0	0
729	36	6,21	621	0	0	0	0
730	29	5,51	551	0	0	0	0
731	28	5,12	512	0	0	0	0
732	22	5,40	540	0	0	0	0
733	26	5,56	556	0	0	0	0
734	23	4,12	412	0	0	0	0
735	21	4,00	400	0	0	0	0
736	31	3,90	390	0	0	0	0
737	23	3,75	375	0	0	0	0
738	29	3,50	350	0	0	0	0
739	1	3,47	347	0	0	0	0
740	8	1,10	110	0	0	0	0
741	9	1,04	104	0	0	0	0
742	24	1,17	117	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
743	29	1,99	199	0	0	0	0
744	15	1,83	183	0	0	0	0
745	23	1,61	161	0	0	0	0
746	14	1,21	121	0	0	0	0
747	19	1,09	109	0	0	0	0
748	20	1,42	142	0	0	0	0
749	20	1,74	174	0	0	0	0
750	17	1,64	164	0	0	0	0
751	12	1,12	112	0	0	0	0
752	25	1,16	116	0	0	0	0
753	17	1,43	143	0	0	0	0
754	13	1,70	170	0	0	0	0
755	13	1,52	152	0	0	0	0
756	12	1,23	123	0	0	0	0
757	14	1,46	146	0	0	0	0
758	16	1,80	180	0	0	0	0
759	16	1,46	146	0	0	0	0
760	9	1,31	131	0	0	0	0
761	10	1,58	159	0	0	0	0
762	12	1,53	153	0	0	0	0
763	14	1,41	141	0	0	0	0
764	19	1,19	119	0	0	0	0
765	17	1,62	162	0	0	0	0
766	25	2,08	208	0	0	0	0
767	16	2,03	203	0	0	0	0
768	8	1,95	195	0	0	0	0
769	7	1,67	168	0	0	0	0
770	8	2,18	218	0	0	0	0
771	9	1,48	148	0	0	0	0
772	11	1,32	132	0	0	0	0
773	11	2,51	251	0	0	0	0
774	10	1,77	177	0	0	0	0
775	9	1,42	142	0	0	0	0
776	8	1,91	191	0	0	0	0
777	6	1,14	114	0	0	0	0
778	3	0,79	79	0	0	0	0
779	3	0,68	68	0	0	0	0
780	7	0,95	95	0	0	0	0
781	28	0,65	65	0	0	0	0
782	24	1,05	105	0	0	0	0
783	27	1,56	156	0	0	0	0
784	25	2,32	232	0	0	0	0
785	25	2,63	263	0	0	0	0
786	22	2,32	232	0	0	0	0
787	23	2,13	213	0	0	0	0
788	30	2,26	227	0	0	0	0
789	16	2,99	299	0	0	0	0
790	17	3,68	368	0	0	0	0
791	22	2,66	266	0	0	0	0
792	25	2,08	208	0	0	0	0
793	26	2,26	226	0	0	0	0
794	25	2,61	261	0	0	0	0
795	26	3,37	337	0	0	0	0
796	37	4,00	400	0	0	0	0
797	28	0,78	345	0	0	0	0
798	24	1,83	183	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
799	5	1,37	137	0	0	0	0
800	19	1,51	151	0	0	0	0
801	21	1,86	186	0	0	0	0
802	20	1,93	193	0	0	0	0
803	19	1,99	199	0	0	0	0
804	13	2,11	211	0	0	0	0
805	13	1,89	189	0	0	0	0
806	10	1,98	198	0	0	0	0
807	18	2,21	221	0	0	0	0
808	18	2,11	211	0	0	0	0
809	13	1,81	181	0	0	0	0
810	19	1,51	151	0	0	0	0
811	19	1,56	156	0	0	0	0
812	20	1,63	163	0	0	0	0
813	12	1,62	162	0	0	0	0
814	13	1,57	157	0	0	0	0
815	11	1,52	152	0	0	0	0
816	15	1,58	158	0	0	0	0
817	17	1,52	152	0	0	0	0
818	17	1,99	199	0	0	0	0
819	16	2,20	220	0	0	0	0
820	14	2,14	214	0	0	0	0
821	13	1,84	184	0	0	0	0
822	12	2,01	201	0	0	0	0
823	12	1,84	184	0	0	0	0
824	14	2,04	204	0	0	0	0
825	11	2,12	212	0	0	0	0
826	13	2,78	278	0	0	0	0
827	12	2,83	283	0	0	0	0
828	12	2,13	213	0	0	0	0
829	12	1,91	191	0	0	0	0
830	12	2,03	203	0	0	0	0
831	13	2,20	220	0	0	0	0
832	12	1,82	182	0	0	0	0
833	14	1,68	168	0	0	0	0
834	11	1,73	173	0	0	0	0
835	12	1,98	198	0	0	0	0
836	13	3,35	335	0	0	0	0
837	12	3,00	300	0	0	0	0
838	11	1,58	158	0	0	0	0
839	11	2,00	200	0	0	0	0
840	16	2,05	205	0	0	0	0
841	12	2,73	273	0	0	0	0
842	12	4,40	440	0	0	0	0
843	12	4,04	404	0	0	0	0
844	12	3,16	316	0	0	0	0
845	8	2,32	232	0	0	0	0
846	3	4,08	408	0	0	0	0
847	33	4,82	482	0	0	0	0
848	50	5,09	509	0	0	0	0
849	54	7,91	791	0	0	0	0
850	26	7,60	760	0	0	0	0
851	33	6,42	642	0	0	0	0
852	24	5,66	566	0	0	0	0
853	39	5,65	565	0	0	0	0
854	54	6,10	610	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
855	52	7,33	733	0	0	0	0
856	59	10,69	1069	0	0	0	0
857	58	10,35	1035	0	0	0	0
858	56	10,03	1003	0	0	0	0
859	43	9,98	998	0	0	0	0
860	38	10,14	1014	0	0	0	0
861	37	9,70	970	0	0	0	0
862	38	8,78	878	0	0	0	0
863	35	10,28	1028	0	0	0	0
864	36	9,86	986	0	0	0	0
865	47	9,53	953	0	0	0	0
866	50	9,40	940	0	0	0	0
867	51	9,27	927	0	0	0	0
868	44	9,05	905	0	0	0	0
869	47	8,95	895	0	0	0	0
870	35	8,61	861	0	0	0	0
871	36	7,00	700	0	0	0	0
872	23	6,85	685	0	0	0	0
873	31	8,15	815	0	0	0	0
874	41	9,10	910	0	0	0	0
875	44	9,53	953	0	0	0	0
876	52	9,84	984	0	0	0	0
877	55	9,93	993	0	0	0	0
878	11	11,52	1152	0	0	0	0
879	63	11,73	1173	0	0	0	0
880	56	11,44	1144	0	0	0	0
881	55	10,50	1050	0	0	0	0
882	45	8,80	880	0	0	0	0
883	36	8,07	807	0	0	0	0
884	39	7,64	764	0	0	0	0
885	42	7,37	737	0	0	0	0
886	46	7,18	718	0	0	0	0
887	46	7,09	709	0	0	0	0
888	48	6,59	659	0	0	0	0
889	65	6,15	615	0	0	0	0
890	54	6,90	690	0	0	0	0
891	33	7,66	766	0	0	0	0
892	37	8,21	821	0	0	0	0
893	18	5,49	549	0	0	0	0
894	10	3,40	340	0	0	0	0
895	15	2,81	281	0	0	0	0
896	18	3,32	332	0	0	0	0
897	18	3,73	373	0	0	0	0
898	21	2,74	274	0	0	0	0
899	18	3,16	316	0	0	0	0
900	17	3,42	342	0	0	0	0
901	19	3,70	370	0	0	0	0
902	17	5,98	598	0	0	0	0
903	21	5,73	574	0	0	0	0
904	20	4,77	477	0	0	0	0
905	21	4,25	425	0	0	0	0
906	18	4,20	420	0	0	0	0
907	15	4,83	483	0	0	0	0
908	19	6,32	632	0	0	0	0
909	12	3,46	346	0	0	0	0
910	11	5,04	504	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
911	13	6,79	679	0	0	0	0
912	3	4,92	492	0	0	0	0
913	15	4,30	430	0	0	0	0
914	15	8,62	862	0	0	0	0
915	12	8,09	809	0	0	0	0
916	13	6,34	634	0	0	0	0
917	12	6,30	630	0	0	0	0
918	8	8,48	848	0	0	0	0
919	8	3,70	370	0	0	0	0
920	11	5,53	553	0	0	0	0
921	11	8,40	840	0	0	0	0
922	14	5,34	534	0	0	0	0
923	11	3,88	388	0	0	0	0
924	11	5,96	596	0	0	0	0
925	16	7,70	770	0	0	0	0
926	17	6,25	625	0	0	0	0
927	16	4,69	469	0	0	0	0
928	13	4,61	461	0	0	0	0
929	11	7,13	713	0	0	0	0
930	11	5,61	561	0	0	0	0
931	13	3,62	362	0	0	0	0
932	15	3,78	378	0	0	0	0
933	12	4,54	454	0	0	0	0
934	12	2,97	297	0	0	0	0
935	12	2,09	209	0	0	0	0
936	12	3,00	299	1	0	0	0
937	11	2,67	266	1	0	0	0
938	9	2,04	204	0	0	0	0
939	13	2,19	219	0	0	0	0
940	11	2,64	264	0	0	0	0
941	11	2,32	232	0	0	0	0
942	11	2,08	208	0	0	0	0
943	12	2,40	240	0	0	0	0
944	13	2,24	224	0	0	0	0
945	11	2,15	215	0	0	0	0
946	13	1,95	196	0	0	0	0
947	15	2,80	280	0	0	0	0
948	13	3,61	361	0	0	0	0
949	15	4,22	422	0	0	0	0
950	14	3,98	398	0	0	0	0
951	14	3,45	345	0	0	0	0
952	12	1,73	173	0	0	0	0
953	24	2,44	244	0	0	0	0
954	36	2,89	289	0	0	0	0
955	32	2,81	281	0	0	0	0
956	29	3,31	332	0	0	0	0
957	20	4,88	488	0	0	0	0
958	29	4,30	430	0	0	0	0
959	27	6,12	612	0	0	0	0
960	26	7,05	705	0	0	0	0
961	39	8,28	828	0	0	0	0
962	36	8,99	899	0	0	0	0
963	28	9,49	949	0	0	0	0
964	42	9,59	959	0	0	0	0
965	41	9,28	928	0	0	0	0
966	32	8,91	891	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
967	31	7,11	711	0	0	0	0
968	30	7,80	780	0	0	0	0
969	25	7,14	714	0	0	0	0
970	25	6,96	696	0	0	0	0
971	26	8,03	804	0	0	0	0
972	32	8,90	890	0	0	0	0
973	31	8,28	828	0	0	0	0
974	33	6,86	686	0	0	0	0
975	26	7,61	761	0	0	0	0
976	25	6,76	676	0	0	0	0
977	35	6,74	674	0	0	0	0
978	33	7,01	701	0	0	0	0
979	27	7,47	747	0	0	0	0
980	34	7,86	786	0	0	0	0
981	34	7,84	784	0	0	0	0
982	31	7,12	712	0	0	0	0
983	29	7,04	704	0	0	0	0
984	38	4,59	459	0	0	0	0
985	36	6,49	649	0	0	0	0
986	35	7,40	740	0	0	0	0
987	30	5,23	523	0	0	0	0
988	25	0,94	94	0	0	0	0
989	44	2,46	247	0	0	0	0
990	64	3,99	399	0	0	0	0
991	49	4,16	416	0	0	0	0
992	35	4,41	441	0	0	0	0
993	38	4,48	448	0	0	0	0
994	38	3,29	329	0	0	0	0
995	39	4,03	403	0	0	0	0
996	43	4,99	499	0	0	0	0
997	58	5,22	522	0	0	0	0
998	56	5,44	544	0	0	0	0
999	53	5,61	561	0	0	0	0
1000	57	5,85	585	0	0	0	0
1001	55	6,66	666	0	0	0	0
1002	49	8,57	857	0	0	0	0
1003	45	9,57	957	0	0	0	0
1004	52	10,98	1098	0	0	0	0
1005	65	11,23	1123	0	0	0	0
1006	54	10,30	1030	0	0	0	0
1007	51	8,96	896	0	0	0	0
1008	51	8,21	821	0	0	0	0
1009	70	9,22	922	0	0	0	0
1010	97	10,28	1028	0	0	0	0
1011	116	10,37	1037	0	0	0	0
1012	139	10,40	1040	0	0	0	0
1013	116	10,25	1025	0	0	0	0
1014	123	10,16	1016	0	0	0	0
1015	125	10,04	1004	0	0	0	0
1016	107	9,92	992	0	0	0	0
1017	86	9,59	959	0	0	0	0
1018	116	9,59	959	0	0	0	0
1019	123	8,90	890	0	0	0	0
1020	168	8,56	856	0	0	0	0
1021	160	7,75	775	0	0	0	0
1022	158	7,48	748	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1023	131	7,48	748	0	0	0	0
1024	113	7,22	722	0	0	0	0
1025	104	8,30	830	0	0	0	0
1026	110	9,07	907	0	0	0	0
1027	113	9,07	907	0	0	0	0
1028	94	12,01	1201	0	0	0	0
1029	90	16,91	1691	0	0	0	0
1030	103	18,63	1863	0	0	0	0
1031	99	15,09	1509	0	0	0	0
1032	114	13,32	1332	0	0	0	0
1033	95	24,55	2455	0	0	0	0
1034	110	25,44	2544	0	0	0	0
1035	98	27,22	2722	0	0	0	0
1036	116	27,53	2753	0	0	0	0
1037	93	28,15	2815	0	0	0	0
1038	96	28,02	2800	1	0	0	0
1039	101	27,95	2792	2	0	0	0
1040	97	27,29	2729	0	0	0	0
1041	106	27,02	2702	0	0	0	0
1042	110	26,46	2646	0	0	0	0
1043	106	26,46	2646	0	0	0	0
1044	105	24,57	2457	0	0	0	0
1045	114	24,57	2457	0	0	0	0
1046	110	22,75	2275	0	0	0	0
1047	102	20,93	2093	0	0	0	0
1048	90	20,02	2002	0	0	0	0
1049	100	19,50	1950	0	0	0	0
1050	113	19,16	1916	0	0	0	0
1051	103	18,81	1881	0	0	0	0
1052	98	18,58	1858	0	0	0	0
1053	115	18,38	1838	0	0	0	0
1054	116	17,84	1784	0	0	0	0
1055	94	17,53	1753	0	0	0	0
1056	95	17,04	1704	0	0	0	0
1057	99	16,71	1671	0	0	0	0
1058	96	15,65	1565	0	0	0	0
1059	101	16,10	1610	0	0	0	0
1060	104	18,14	1814	0	0	0	0
1061	90	19,86	1986	0	0	0	0
1062	87	8,89	890	0	0	0	0
1063	51	4,11	411	0	0	0	0
1064	40	4,88	488	0	0	0	0
1065	38	4,99	499	0	0	0	0
1066	36	4,83	483	0	0	0	0
1067	40	4,14	414	0	0	0	0
1068	40	3,67	367	0	0	0	0
1069	56	3,42	342	0	0	0	0
1070	49	3,33	333	0	0	0	0
1071	48	3,28	328	0	0	0	0
1072	53	3,33	333	0	0	0	0
1073	40	2,67	267	0	0	0	0
1074	38	2,92	292	0	0	0	0
1075	56	3,50	350	0	0	0	0
1076	49	3,38	338	0	0	0	0
1077	34	3,35	335	0	0	0	0
1078	38	3,29	329	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1079	29	3,04	304	0	0	0	0
1080	32	3,05	305	0	0	0	0
1081	36	2,77	277	0	0	0	0
1082	36	2,26	226	0	0	0	0
1083	43	2,53	253	0	0	0	0
1084	40	2,46	246	0	0	0	0
1085	49	2,29	229	0	0	0	0
1086	39	2,75	275	0	0	0	0
1087	51	4,67	467	0	0	0	0
1088	50	5,59	559	0	0	0	0
1089	52	8,11	811	0	0	0	0
1090	54	8,55	855	0	0	0	0
1091	47	9,78	978	0	0	0	0
1092	54	11,47	1147	0	0	0	0
1093	50	12,22	1222	0	0	0	0
1094	50	12,68	1268	0	0	0	0
1095	43	13,10	1310	0	0	0	0
1096	59	13,73	1373	0	0	0	0
1097	52	14,62	1462	0	0	0	0
1098	67	14,55	1455	0	0	0	0
1099	60	14,34	1434	0	0	0	0
1100	57	13,90	1390	0	0	0	0
1101	64	13,46	1346	0	0	0	0
1102	60	13,21	1321	0	0	0	0
1103	54	9,18	918	0	0	0	0
1104	55	8,37	837	0	0	0	0
1105	60	11,49	1149	0	0	0	0
1106	54	10,06	1006	0	0	0	0
1107	61	8,68	868	0	0	0	0
1108	63	8,95	895	0	0	0	0
1109	53	9,37	937	0	0	0	0
1110	54	11,21	1122	0	0	0	0
1111	49	14,49	1449	0	0	0	0
1112	52	16,68	1668	0	0	0	0
1113	65	18,98	1898	0	0	0	0
1114	83	19,87	1987	0	0	0	0
1115	113	20,44	2044	0	0	0	0
1116	113	20,44	2044	0	0	0	0
1117	122	20,73	2073	0	0	0	0
1118	127	20,73	2073	0	0	0	0
1119	121	20,55	2055	0	0	0	0
1120	135	20,55	2055	0	0	0	0
1121	124	16,06	1606	0	0	0	0
1122	154	16,74	1674	0	0	0	0
1123	136	19,46	1946	0	0	0	0
1124	164	20,14	2014	0	0	0	0
1125	153	20,53	2053	0	0	0	0
1126	149	22,05	2205	0	0	0	0
1127	158	22,19	2219	0	0	0	0
1128	133	22,76	2276	0	0	0	0
1129	133	23,39	2339	0	0	0	0
1130	109	23,97	2397	0	0	0	0
1131	124	23,85	2385	0	0	0	0
1132	134	23,79	2379	0	0	0	0
1133	140	23,79	2379	0	0	0	0
1134	141	23,49	2349	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1135	140	23,38	2338	0	0	0	0
1136	114	22,34	2234	0	0	0	0
1137	119	21,99	2199	0	0	0	0
1138	122	21,99	2199	0	0	0	0
1139	123	21,16	2116	0	0	0	0
1140	108	19,49	1950	0	0	0	0
1141	106	18,94	1894	0	0	0	0
1142	104	18,94	1894	0	0	0	0
1143	118	18,18	1818	0	0	0	0
1144	125	17,90	1790	0	0	0	0
1145	124	17,69	1769	0	0	0	0
1146	122	17,41	1741	0	0	0	0
1147	131	16,57	1657	0	0	0	0
1148	129	15,08	1508	0	0	0	0
1149	135	12,08	1208	0	0	0	0
1150	144	12,08	1208	0	0	0	0
1151	125	11,77	1177	0	0	0	0
1152	111	14,70	1471	0	0	0	0
1153	101	16,98	1698	0	0	0	0
1154	55	26,37	2637	0	0	0	0
1155	60	17,78	1778	0	0	0	0
1156	56	9,12	912	0	0	0	0
1157	70	9,07	907	0	0	0	0
1158	60	8,75	875	0	0	0	0
1159	51	8,70	871	0	0	0	0
1160	55	8,51	851	0	0	0	0
1161	72	8,50	850	0	0	0	0
1162	58	8,45	845	0	0	0	0
1163	65	8,36	836	0	0	0	0
1164	40	8,30	830	0	0	0	0
1165	52	6,85	685	0	0	0	0
1166	54	8,32	832	0	0	0	0
1167	59	8,44	844	0	0	0	0
1168	57	8,53	853	0	0	0	0
1169	60	8,69	869	0	0	0	0
1170	57	8,68	868	0	0	0	0
1171	60	8,65	865	0	0	0	0
1172	63	8,65	865	0	0	0	0
1173	57	8,73	873	0	0	0	0
1174	58	8,78	878	0	0	0	0
1175	51	9,37	937	0	0	0	0
1176	44	10,34	1034	0	0	0	0
1177	47	11,49	1149	0	0	0	0
1178	47	10,27	1027	0	0	0	0
1179	43	15,18	1518	0	0	0	0
1180	40	15,94	1594	0	0	0	0
1181	42	16,31	1631	0	0	0	0
1182	42	15,54	1554	0	0	0	0
1183	39	13,12	1312	0	0	0	0
1184	41	11,57	1157	0	0	0	0
1185	61	11,49	1149	0	0	0	0
1186	111	11,16	1116	0	0	0	0
1187	85	10,29	1029	0	0	0	0
1188	101	10,28	1028	0	0	0	0
1189	117	10,25	1025	0	0	0	0
1190	118	9,99	999	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1191	125	9,20	920	0	0	0	0
1192	128	9,20	920	0	0	0	0
1193	114	9,08	908	0	0	0	0
1194	117	8,65	865	0	0	0	0
1195	107	8,31	831	0	0	0	0
1196	124	8,15	815	0	0	0	0
1197	115	7,91	791	0	0	0	0
1198	141	7,66	766	0	0	0	0
1199	144	7,66	766	0	0	0	0
1200	124	7,79	779	0	0	0	0
1201	128	7,91	791	0	0	0	0
1202	164	8,59	859	0	0	0	0
1203	155	8,59	859	0	0	0	0
1204	123	10,10	1010	0	0	0	0
1205	125	10,10	1010	0	0	0	0
1206	137	10,10	1010	0	0	0	0
1207	135	13,79	1379	0	0	0	0
1208	129	13,79	1379	0	0	0	0
1209	142	19,03	1903	0	0	0	0
1210	151	19,03	1903	0	0	0	0
1211	241	19,03	1903	0	0	0	0
1212	258	19,03	1903	0	0	0	0
1213	193	21,97	2197	0	0	0	0
1214	193	23,44	2344	0	0	0	0
1215	154	23,44	2344	0	0	0	0
1216	124	25,45	2545	0	0	0	0
1217	137	25,45	2545	0	0	0	0
1218	130	24,76	2476	0	0	0	0
1219	123	23,79	2379	0	0	0	0
1220	92	23,79	2379	0	0	0	0
1221	25	9,34	934	0	0	0	0
1222	22	8,24	824	0	0	0	0
1223	32	8,86	886	0	0	0	0
1224	42	10,34	1034	0	0	0	0
1225	39	10,30	1030	0	0	0	0
1226	40	8,57	857	0	0	0	0
1227	46	7,76	776	0	0	0	0
1228	67	7,31	731	0	0	0	0
1229	61	7,05	705	0	0	0	0
1230	63	6,64	664	0	0	0	0
1231	42	6,55	655	0	0	0	0
1232	62	6,40	640	0	0	0	0
1233	94	6,35	635	0	0	0	0
1234	73	6,41	641	0	0	0	0
1235	101	6,37	637	0	0	0	0
1236	108	6,32	632	0	0	0	0
1237	56	6,34	634	0	0	0	0
1238	75	6,36	636	0	0	0	0
1239	125	6,37	637	0	0	0	0
1240	95	6,38	638	0	0	0	0
1241	79	5,31	531	0	0	0	0
1242	76	5,78	578	0	0	0	0
1243	107	6,29	629	0	0	0	0
1244	116	6,35	635	0	0	0	0
1245	105	6,40	640	0	0	0	0
1246	81	6,29	629	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1247	94	6,43	643	0	0	0	0
1248	101	6,46	646	0	0	0	0
1249	89	4,20	420	0	0	0	0
1250	129	4,31	431	0	0	0	0
1251	40	4,31	431	0	0	0	0
1252	50	4,67	467	0	0	0	0
1253	56	5,24	524	0	0	0	0
1254	62	5,24	524	0	0	0	0
1255	66	5,40	540	0	0	0	0
1256	60	4,53	453	0	0	0	0
1257	71	5,64	564	0	0	0	0
1258	53	5,73	573	0	0	0	0
1259	51	5,64	564	0	0	0	0
1260	53	5,39	539	0	0	0	0
1261	50	5,27	527	0	0	0	0
1262	61	5,15	515	0	0	0	0
1263	49	5,08	508	0	0	0	0
1264	52	5,10	510	0	0	0	0
1265	52	5,10	510	0	0	0	0
1266	48	5,28	528	0	0	0	0
1267	55	5,56	556	0	0	0	0
1268	49	4,61	461	0	0	0	0
1269	56	5,54	554	0	0	0	0
1270	62	5,54	554	0	0	0	0
1271	68	6,01	601	0	0	0	0
1272	63	6,01	601	0	0	0	0
1273	65	5,94	594	0	0	0	0
1274	75	5,92	592	0	0	0	0
1275	80	6,46	646	0	0	0	0
1276	85	6,46	646	0	0	0	0
1277	58	7,01	701	0	0	0	0
1278	109	7,55	755	0	0	0	0
1279	122	7,63	763	0	0	0	0
1280	129	7,89	789	0	0	0	0
1281	122	8,08	808	0	0	0	0
1282	104	8,08	808	0	0	0	0
1283	131	8,08	808	0	0	0	0
1284	106	7,94	794	0	0	0	0
1285	88	7,94	794	0	0	0	0
1286	87	7,81	781	0	0	0	0
1287	82	7,81	781	0	0	0	0
1288	88	7,64	764	0	0	0	0
1289	87	7,15	704	3	2	0	0
1290	74	7,12	712	0	0	0	0
1291	92	7,12	712	0	0	0	0
1292	104	6,93	693	0	0	0	0
1293	123	6,88	688	0	0	0	0
1294	116	6,78	678	0	0	0	0
1295	133	6,78	678	0	0	0	0
1296	130	6,64	664	0	0	0	0
1297	135	6,60	660	0	0	0	0
1298	116	6,47	647	0	0	0	0
1299	121	6,47	647	0	0	0	0
1300	112	6,30	630	0	0	0	0
1301	120	6,24	624	0	0	0	0
1302	73	6,06	606	0	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1303	65	4,49	449	0	0	0	0
1304	73	4,49	449	0	0	0	0
1305	80	3,65	365	0	0	0	0
1306	108	4,57	457	0	0	0	0
1307	93	4,80	480	0	0	0	0
1308	103	5,14	514	0	0	0	0
1309	96	5,14	514	0	0	0	0
1310	88	5,44	544	0	0	0	0
1311	92	5,76	576	0	0	0	0
1312	92	5,83	583	0	0	0	0
1313	115	6,78	678	0	0	0	0
1314	83	4,96	473	7	4	0	0
1315	70	5,14	514	0	0	0	0
1316	61	5,11	511	0	0	0	0
1317	46	4,92	492	0	0	0	0
1318	55	4,47	447	0	0	0	0
1319	30	4,34	434	0	0	0	0
1320	36	4,32	432	0	0	0	0
1321	37	4,41	441	0	0	0	0
1322	37	4,96	496	0	0	0	0
1323	47	5,22	522	0	0	0	0
1324	48	5,68	568	0	0	0	0
1325	41	6,35	635	0	0	0	0
1326	43	7,01	701	0	0	0	0
1327	43	7,25	725	0	0	0	0
1328	33	7,33	733	0	0	0	0
1329	25	7,04	704	0	0	0	0
1330	31	6,99	699	0	0	0	0
1331	35	6,93	668	8	4	0	0
1332	32	7,06	706	0	0	0	0
1333	38	7,19	719	0	0	0	0
1334	36	7,50	740	4	1	0	0
1335	50	7,60	760	0	0	0	0
1336	36	5,17	517	0	0	0	0
1337	36	7,72	772	0	0	0	0
1338	25	6,38	610	8	5	0	0
1339	28	6,11	584	9	4	0	0
1340	35	5,64	541	7	4	0	0
1341	23	4,67	446	7	3	0	0
1342	51	4,92	469	7	4	0	0
1343	49	4,98	478	5	4	0	0
1344	51	1,94	183	3	2	0	0
1345	25	2,34	220	3	3	0	0
1346	54	2,22	209	4	2	0	0
1347	41	3,12	298	5	2	0	0
1348	63	3,71	354	5	3	0	0
1349	50	4,17	398	6	3	0	0
1350	60	4,64	445	6	3	0	0
1351	58	4,87	468	6	3	0	0
1352	38	5,11	488	7	4	0	0
1353	49	5,23	504	6	3	0	0
1354	31	5,41	520	7	3	0	0
1355	22	5,56	535	7	3	0	0
1356	34	5,62	541	7	3	0	0
1357	31	5,57	536	7	3	0	0
1358	39	5,11	484	9	4	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1359	45	5,60	538	6	4	0	0
1360	52	5,60	538	6	4	0	0
1361	56	5,62	541	7	3	0	0
1362	29	5,89	566	7	4	0	0
1363	35	5,97	576	7	3	0	0
1364	40	6,03	578	8	4	0	0
1365	28	6,59	634	8	4	0	0
1366	39	6,92	656	14	4	0	0
1367	37	7,76	747	10	4	0	0
1368	26	7,87	754	11	5	0	0
1369	27	7,74	748	7	5	0	0
1370	35	7,64	733	11	4	0	0
1371	48	7,94	756	12	6	0	0
1372	46	7,94	759	12	5	0	0
1373	56	7,96	763	11	5	0	0
1374	61	7,87	754	11	5	0	0
1375	61	7,83	760	7	4	0	0
1376	61	8,18	786	10	5	0	0
1377	59	8,38	805	11	5	0	0
1378	55	8,67	835	12	4	0	0
1379	66	9,20	875	16	6	0	0
1380	59	9,20	875	16	6	0	0
1381	66	10,96	1055	15	5	0	0
1382	86	10,96	1055	15	5	0	0
1383	82	11,47	1107	16	4	0	0
1384	55	11,47	1107	16	4	0	0
1385	69	11,78	1137	15	5	0	0
1386	69	11,82	1144	15	4	0	0
1387	43	12,05	1160	16	6	0	0
1388	44	12,27	1182	16	6	0	0
1389	50	12,24	1177	17	6	0	0
1390	45	14,52	1393	21	8	0	0
1391	95	15,49	1488	22	8	0	0
1392	93	15,48	1487	22	8	0	0
1393	68	14,12	1357	20	7	0	0
1394	86	11,99	1152	17	6	0	0
1395	93	9,76	935	15	5	0	0
1396	119	7,42	709	11	5	0	0
1397	102	7,42	709	11	5	0	0
1398	48	7,62	725	13	5	0	0
1399	78	7,86	754	12	4	0	0
1400	81	7,86	754	12	4	0	0
1401	91	7,98	760	12	6	0	0
1402	82	8,44	807	13	5	0	0
1403	77	8,44	807	13	5	0	0
1404	107	8,53	811	16	5	0	0
1405	130	8,49	814	12	5	0	0
1406	96	8,49	814	12	5	0	0
1407	100	8,10	769	15	5	0	0
1408	114	7,97	755	16	5	0	0
1409	114	6,57	621	14	4	0	0
1410	55	7,43	702	15	5	0	0
1411	62	7,44	705	14	5	0	0
1412	117	7,32	698	13	4	0	0
1413	55	7,26	690	14	4	0	0
1414	59	7,37	700	13	5	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1415	84	7,20	685	12	5	0	0
1416	81	6,31	600	11	4	0	0
1417	76	5,46	511	12	5	0	0
1418	86	6,21	589	10	5	0	0
1419	85	6,83	648	12	5	0	0
1420	63	6,75	637	12	6	0	0
1421	65	5,98	557	14	6	0	0
1422	87	7,32	692	13	6	0	0
1423	98	5,95	562	11	5	0	0
1424	99	7,91	744	14	8	0	0
1425	74	8,25	776	15	8	0	0
1426	113	9,07	855	17	8	0	0
1427	113	9,42	887	17	9	0	0
1428	146	9,42	887	17	9	0	0
1429	154	9,25	872	16	9	0	0
1430	188	8,59	814	13	8	0	0
1431	155	8,59	814	13	8	0	0
1432	161	7,09	674	12	5	0	0
1433	141	4,72	447	8	4	0	0
1434	157	4,72	447	8	4	0	0
1435	120	3,00	285	4	3	0	0
1436	141	3,00	285	4	3	0	0
1437	134	2,11	200	3	2	0	0
1438	195	1,87	178	2	2	0	0
1439	200	1,48	137	3	2	0	0
1440	200	2,61	235	9	4	0	0
1441	31	3,29	304	8	4	0	0
1442	21	3,76	348	9	4	0	0
1443	42	4,00	371	10	4	0	0
1444	35	4,27	396	11	4	0	0
1445	34	4,23	397	8	4	0	0
1446	58	4,13	387	9	4	0	0
1447	52	3,88	362	8	4	0	0
1448	62	3,82	357	8	4	0	0
1449	61	3,80	355	8	4	0	0
1450	67	3,81	357	8	4	0	0
1451	72	3,94	371	8	3	0	0
1452	65	4,18	394	9	3	0	0
1453	70	4,30	405	10	3	0	0
1454	78	4,32	400	11	4	0	0
1455	79	4,66	437	10	4	0	0
1456	81	4,83	456	10	3	0	0
1457	70	5,10	483	9	4	0	0
1458	66	5,25	499	9	4	0	0
1459	64	5,42	515	10	4	0	0
1460	59	5,68	540	10	4	0	0
1461	70	6,15	586	11	4	0	0
1462	89	6,33	602	11	4	0	0
1463	99	6,70	637	12	5	0	0
1464	96	7,68	729	14	5	0	0
1465	61	8,96	856	15	5	0	0
1466	65	9,61	919	16	5	0	0
1467	44	9,84	942	16	5	0	0
1468	55	9,86	942	17	5	0	0
1469	68	9,86	941	17	5	0	0
1470	78	9,17	862	22	6	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1471	58	9,11	855	22	6	0	0
1472	64	9,21	875	18	5	0	0
1473	84	9,12	872	15	5	0	0
1474	95	9,04	865	15	5	0	0
1475	74	9,04	864	15	5	0	0
1476	80	9,15	875	16	5	0	0
1477	86	9,20	879	16	5	0	0
1478	50	9,10	869	16	5	0	0
1479	128	9,12	871	16	5	0	0
1480	93	9,17	875	16	5	0	0
1481	111	9,09	870	16	4	0	0
1482	109	9,14	875	15	4	0	0
1483	122	9,28	888	15	5	0	0
1484	120	9,27	887	15	5	0	0
1485	138	9,20	881	16	4	0	0
1486	146	9,18	879	16	4	0	0
1487	126	9,28	890	15	4	0	0
1488	79	9,17	880	15	4	0	0
1489	116	8,86	851	14	4	0	0
1490	121	8,86	851	14	4	0	0
1491	110	8,34	797	14	4	0	0
1492	108	7,53	716	15	4	0	0
1493	95	7,47	716	11	4	0	0
1494	112	7,40	709	12	4	0	0
1495	116	7,27	696	12	3	0	0
1496	137	7,19	688	13	3	0	0
1497	114	7,16	685	13	3	0	0
1498	130	7,60	728	13	3	0	0
1499	115	7,81	748	13	4	0	0
1500	135	7,30	699	13	3	0	0
1501	135	7,02	675	12	2	0	0
1502	119	7,41	712	13	2	0	0
1503	136	7,80	749	13	3	0	0
1504	157	7,57	726	13	3	0	0
1505	100	6,66	634	13	3	0	0
1506	114	6,35	601	13	4	0	0
1507	158	6,26	592	13	4	0	0
1508	145	6,26	592	13	4	0	0
1509	151	6,30	599	13	3	0	0
1510	137	6,26	596	13	3	0	0
1511	137	6,08	577	13	3	0	0
1512	120	6,04	572	13	3	0	0
1513	124	6,10	580	13	2	0	0
1514	121	6,16	587	13	2	0	0
1515	165	6,16	587	13	2	0	0
1516	120	6,48	620	12	2	0	0
1517	132	6,80	653	11	3	0	0
1518	184	6,99	671	11	3	0	0
1519	158	7,11	683	11	3	0	0
1520	129	7,11	683	11	3	0	0
1521	140	7,37	709	11	3	0	0
1522	147	7,95	766	11	3	0	0
1523	133	8,56	825	12	3	0	0
1524	146	8,56	825	12	3	0	0
1525	132	8,90	859	12	3	0	0
1526	180	10,41	1008	14	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1527	164	12,29	1192	17	3	0	0
1528	162	13,23	1283	18	3	0	0
1529	176	14,64	1419	19	4	0	0
1530	148	15,11	1465	19	5	0	0
1531	137	12,22	1182	17	4	0	0
1532	135	10,03	969	15	3	0	0
1533	137	9,97	965	14	3	0	0
1534	133	7,77	752	11	2	0	0
1535	40	4,78	456	9	2	0	0
1536	35	4,93	470	9	3	0	0
1537	47	4,95	477	7	2	0	0
1538	62	4,96	477	8	2	0	0
1539	25	5,11	490	9	2	0	0
1540	50	5,28	506	10	2	0	0
1541	56	5,43	519	11	2	0	0
1542	58	5,58	533	11	2	0	0
1543	75	5,64	539	11	2	0	0
1544	64	5,92	569	10	2	0	0
1545	61	6,39	613	11	2	0	0
1546	51	7,02	675	12	2	0	0
1547	60	7,17	688	13	2	0	0
1548	65	7,70	742	13	2	0	0
1549	65	7,98	771	11	2	0	0
1550	61	9,28	897	14	3	0	0
1551	58	10,56	1021	15	3	0	0
1552	57	11,94	1155	16	4	0	0
1553	55	13,42	1300	18	4	0	0
1554	60	14,08	1364	19	4	0	0
1555	65	14,00	1358	19	3	0	0
1556	55	13,85	1346	18	2	0	0
1557	55	13,73	1330	19	3	0	0
1558	66	13,78	1337	18	3	0	0
1559	65	13,88	1347	18	3	0	0
1560	62	13,91	1350	18	3	0	0
1561	67	12,88	1235	25	3	0	0
1562	70	13,01	1248	24	4	0	0
1563	68	13,01	1248	24	4	0	0
1564	67	13,78	1330	22	4	0	0
1565	80	14,68	1423	20	4	0	0
1566	86	14,80	1435	20	4	0	0
1567	51	13,93	1351	18	3	0	0
1568	75	13,96	1354	19	3	0	0
1569	69	14,02	1362	19	3	0	0
1570	74	13,89	1348	18	3	0	0
1571	97	13,83	1341	18	3	0	0
1572	74	13,90	1349	18	3	0	0
1573	104	13,92	1352	18	3	0	0
1574	39	12,39	1200	17	3	0	0
1575	102	10,96	1060	16	3	0	0
1576	74	10,15	983	14	2	0	0
1577	136	10,15	983	14	2	0	0
1578	175	9,97	962	16	2	0	0
1579	180	9,40	899	19	3	0	0
1580	195	9,40	899	19	3	0	0
1581	163	9,60	917	19	3	0	0
1582	174	9,67	923	19	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1583	189	11,32	1086	20	4	0	0
1584	154	13,51	1303	20	4	0	0
1585	119	13,51	1303	20	4	0	0
1586	140	14,53	1402	22	5	0	0
1587	144	16,07	1551	24	5	0	0
1588	148	16,07	1551	24	5	0	0
1589	132	17,45	1689	25	5	0	0
1590	156	17,45	1689	25	5	0	0
1591	177	18,64	1802	27	5	0	0
1592	139	18,64	1802	27	5	0	0
1593	183	18,69	1807	27	5	0	0
1594	146	18,88	1826	27	5	0	0
1595	69	17,06	1650	24	4	0	0
1596	133	16,10	1558	23	4	0	0
1597	102	16,10	1558	23	4	0	0
1598	129	15,76	1523	24	4	0	0
1599	1	9,53	909	20	3	0	0
1600	114	7,16	676	17	3	0	0
1601	119	7,56	717	17	3	0	0
1602	151	8,21	786	15	3	0	0
1603	116	8,42	809	14	3	0	0
1604	123	8,75	842	14	3	0	0
1605	109	9,75	937	15	4	0	0
1606	115	10,35	995	16	4	0	0
1607	98	10,35	995	16	4	0	0
1608	95	10,72	1028	17	5	0	0
1609	102	11,29	1085	17	5	0	0
1610	99	11,41	1100	17	4	0	0
1611	137	11,28	1087	17	4	0	0
1612	102	11,11	1067	17	5	0	0
1613	100	11,14	1073	17	4	0	0
1614	108	11,21	1080	17	4	0	0
1615	103	12,13	1170	18	4	0	0
1616	127	12,43	1200	18	4	0	0
1617	130	13,73	1327	18	5	0	0
1618	121	13,80	1332	19	5	0	0
1619	175	12,82	1232	20	5	0	0
1620	174	11,27	1077	22	4	0	0
1621	157	11,00	1053	20	4	0	0
1622	86	15,48	1487	22	8	0	0
1623	124	14,12	1357	20	7	0	0
1624	137	11,99	1152	17	6	0	0
1625	89	9,76	935	15	5	0	0
1626	94	7,42	709	11	5	0	0
1627	121	7,42	709	11	5	0	0
1628	118	7,62	725	13	5	0	0
1629	107	7,86	754	12	4	0	0
1630	28	7,86	754	12	4	0	0
1631	43	7,49	715	13	4	0	0
1632	112	7,49	715	13	4	0	0
1633	147	7,23	691	12	4	0	0
1634	157	8,75	842	14	3	0	0
1635	80	9,75	937	15	4	0	0
1636	43	10,35	995	16	4	0	0
1637	43	10,35	995	16	4	0	0
1638	41	10,72	1028	17	5	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1639	41	11,29	1085	17	5	0	0
1640	53	11,41	1100	17	4	0	0
1641	56	11,28	1087	17	4	0	0
1642	54	11,11	1067	17	5	0	0
1643	44	11,14	1073	17	4	0	0
1644	55	11,21	1080	17	4	0	0
1645	39	12,13	1170	18	4	0	0
1646	42	12,43	1200	18	4	0	0
1647	44	13,73	1327	18	5	0	0
1648	42	73,45	7278	22	10	0	0
1649	53	81,10	8046	22	9	0	0
1650	63	78,74	7803	26	9	0	0
1651	62	74,68	7389	32	8	0	0
1652	56	69,11	6835	30	8	0	0
1653	51	59,06	5840	26	7	0	0
1654	53	50,00	4942	23	6	0	0
1655	56	45,38	4484	21	6	0	0
1656	53	37,28	3682	18	5	0	0
1657	58	31,28	3087	17	4	0	0
1658	57	30,06	2965	17	4	0	0
1659	55	26,04	2566	15	4	0	0
1660	56	24,06	2365	15	5	0	0
1661	45	21,86	2147	14	5	0	0
1662	49	18,00	1764	14	4	0	0
1663	51	14,04	1370	13	4	0	0
1664	51	14,14	1378	14	4	0	0
1665	49	18,81	1840	14	6	0	0
1666	60	17,34	1695	14	5	0	0
1667	69	16,36	1602	13	4	0	0
1668	56	17,76	1738	15	4	0	0
1669	50	20,66	2022	17	5	0	0
1670	134	22,62	2213	18	6	0	0
1671	116	23,36	2286	19	6	0	0
1672	92	23,53	2303	19	6	0	0
1673	105	23,88	2336	20	6	0	0
1674	117	24,03	2351	20	6	0	0
1675	115	24,17	2365	20	6	0	0
1676	122	23,58	2306	20	6	0	0
1677	100	22,33	2184	18	6	0	0
1678	131	21,67	2123	17	5	0	0
1679	134	21,25	2081	17	5	0	0
1680	121	20,63	2016	17	6	0	0
1681	127	20,48	2004	17	5	0	0
1682	121	20,39	1995	17	5	0	0
1683	118	19,75	1929	18	5	0	0
1684	131	18,48	1798	20	5	0	0
1685	148	18,48	1798	20	5	0	0
1686	124	18,87	1843	17	5	0	0
1687	143	19,00	1858	16	5	0	0
1688	155	18,72	1830	16	5	0	0
1689	118	17,88	1747	15	5	0	0
1690	137	17,68	1727	15	5	0	0
1691	141	16,86	1645	15	5	0	0
1692	141	16,45	1604	15	5	0	0
1693	162	15,87	1548	14	5	0	0
1694	134	13,76	1341	12	5	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1695	158	12,23	1184	14	5	0	0
1696	100	10,70	1027	15	6	0	0
1697	181	10,70	1027	15	6	0	0
1698	136	9,38	901	13	5	0	0
1699	134	8,30	800	9	5	0	0
CHACRA Fm.							
1700	160	4,71	445	7	5	0	0
1701	154	4,71	445	7	5	0	0
1702	178	5,11	484	9	4	0	0
1703	196	5,42	513	10	4	0	0
1704	170	5,66	539	9	4	0	0
1705	132	4,71	445	7	5	0	0
1706	121	4,71	445	7	5	0	0
1707	142	4,71	445	7	5	0	0
1708	126	4,71	445	7	5	0	0
1709	143	4,71	445	7	5	0	0
1710	159	4,71	445	7	5	0	0
1711	154	4,22	400	6	4	0	0
1712	164	3,69	350	6	3	0	0
1713	126	3,51	330	7	3	0	0
1714	164	3,58	337	7	3	0	0
1715	135	4,71	445	7	5	0	0
1716	153	4,71	445	7	5	0	0
1717	191	4,71	445	7	5	0	0
1718	143	5,11	484	9	4	0	0
1719	125	5,42	513	10	4	0	0
1720	202	5,66	539	9	4	0	0
1721	191	5,79	552	9	4	0	0
1722	169	5,79	552	9	4	0	0
1723	174	5,92	565	9	4	0	0
1724	154	6,10	584	10	3	0	0
1725	80	9,73	934	15	5	0	0
1726	66	9,19	878	16	5	0	0
1727	70	9,46	904	16	5	0	0
1728	69	10,53	1016	13	5	0	0
1729	73	10,58	1020	13	5	0	0
1730	72	10,76	1037	14	6	0	0
1731	64	10,92	1051	14	6	0	0
1732	66	11,03	1062	15	6	0	0
1733	62	10,74	1032	15	6	0	0
1734	55	10,70	1028	14	7	0	0
1735	55	10,74	1033	15	5	0	0
1736	62	10,86	1041	16	6	0	0
1737	63	10,90	1045	16	6	0	0
1738	67	10,93	1052	15	5	0	0
1739	56	10,76	1035	15	5	0	0
1740	51	10,71	1026	16	6	0	0
1741	53	10,38	991	17	6	0	0
1742	54	10,87	1046	15	5	0	0
1743	54	11,13	1068	16	6	0	0
1744	50	11,45	1098	17	6	0	0
1745	49	11,06	1061	16	6	0	0
1746	44	11,23	1081	16	5	0	0
1747	46	11,66	1124	16	5	0	0
1748	53	11,69	1125	17	5	0	0
1749	43	12,03	1161	16	5	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1750	63	12,08	1167	15	5	0	0
1751	69	12,22	1175	17	6	0	0
1752	72	11,87	1142	16	6	0	0
1753	78	11,71	1126	16	6	0	0
1754	77	11,21	1080	15	5	0	0
1755	80	10,53	1011	16	5	0	0
1756	81	10,06	962	17	5	0	0
1757	75	10,05	964	17	4	0	0
1758	84	11,03	1064	14	5	0	0
1759	68	11,17	1075	16	5	0	0
1760	45	10,54	1014	16	4	0	0
1761	67	11,77	1130	17	6	0	0
1762	72	11,77	1130	17	6	0	0
1763	64	10,47	1005	16	5	0	0
1764	65	10,47	1005	16	5	0	0
1765	85	19,93	1923	27	8	0	0
1766	103	19,93	1923	27	8	0	0
1767	128	19,11	1849	24	7	0	0
1768	126	19,03	1841	24	7	0	0
1769	121	18,79	1817	24	7	0	0
1770	113	18,79	1817	24	7	0	0
1771	114	17,90	1721	28	7	0	0
1772	124	17,90	1721	28	7	0	0
1773	106	18,14	1749	24	8	0	0
1774	114	18,14	1749	24	8	0	0
1775	121	17,21	1661	23	7	0	0
1776	117	17,21	1661	23	7	0	0
1777	99	16,37	1581	22	6	0	0
1778	107	16,37	1581	22	6	0	0
1779	127	16,24	1568	22	6	0	0
1780	132	16,18	1561	21	7	0	0
1781	109	16,18	1561	21	7	0	0
1782	114	16,18	1561	21	7	0	0
1783	115	16,06	1554	20	6	0	0
1784	73	15,93	1541	20	6	0	0
1785	101	15,34	1482	20	6	0	0
1786	113	14,51	1403	19	5	0	0
1787	126	13,89	1344	19	4	0	0
1788	130	13,26	1281	19	4	0	0
1789	75	10,78	1028	20	5	0	0
1790	116	14,31	1377	21	6	0	0
1791	130	16,94	1638	22	6	0	0
1792	165	16,94	1638	22	6	0	0
1793	169	17,07	1651	22	6	0	0
1794	134	17,17	1663	21	6	0	0
1795	143	17,35	1681	21	6	0	0
1796	154	16,56	1606	20	5	0	0
1797	117	12,50	1210	16	4	0	0
1798	113	10,92	1056	14	4	0	0
1799	119	12,76	1234	16	5	0	0
1800	102	15,25	1477	19	5	0	0
1801	117	12,76	1234	16	5	0	0
1802	120	15,25	1477	19	5	0	0
1803	104	12,76	1234	16	5	0	0
1804	134	15,25	1477	19	5	0	0
1805	150	12,76	1234	16	5	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1806	127	15,25	1477	19	5	0	0
1807	154	14,31	1377	21	6	0	0
1808	122	16,94	1638	22	6	0	0
1809	126	14,31	1377	21	6	0	0
1810	152	16,94	1638	22	6	0	0
1811	129	15,25	1477	19	5	0	0
1812	111	15,25	1477	19	5	0	0
1813	132	15,25	1477	19	5	0	0
1814	124	16,24	1574	19	6	0	0
1815	118	17,22	1670	20	6	0	0
1816	87	17,68	1714	21	6	0	0
1817	100	17,87	1736	21	5	0	0
1818	116	17,87	1731	22	6	0	0
1819	117	16,73	1619	21	6	0	0
1820	98	14,49	1400	18	6	0	0
1821	51	12,58	1216	16	5	0	0
1822	40	11,64	1123	15	5	0	0
1823	43	11,45	1102	18	4	0	0
1824	36	14,87	1439	19	5	0	0
1825	51	32,01	3114	35	9	0	0
1826	62	36,88	3587	41	10	0	0
1827	63	32,54	3163	37	9	0	0
1828	45	26,46	2569	31	8	0	0
1829	61	24,49	2380	28	7	0	0
1830	70	24,34	2363	29	7	0	0
1831	76	35,85	3485	42	9	0	0
1832	82	50,28	4905	52	11	0	0
1833	78	55,44	5411	56	12	0	0
1834	90	65,76	6422	66	13	0	0
1835	50	77,41	7560	78	15	0	0
1836	97	74,79	7308	74	14	0	0
1837	93	67,77	6609	74	13	0	0
1838	84	54,43	5290	67	12	0	0
1839	79	54,82	5353	55	11	0	0
1840	81	52,58	5137	52	10	0	0
1841	101	51,44	5028	51	9	0	0
1842	98	57,41	5613	56	10	0	0
1843	85	59,41	5807	58	11	0	0
1844	78	73,81	7225	70	11	0	0
1845	89	73,81	7225	70	11	0	0
1846	97	58,44	5714	57	10	0	0
1847	93	58,44	5714	57	10	0	0
1848	101	44,66	4365	44	8	0	0
1849	87	47,24	4614	49	8	0	0
1850	88	48,55	4739	51	9	0	0
1851	79	64,09	6257	68	11	0	0
1852	95	93,22	9102	98	16	0	0
1853	164	93,22	9102	98	16	0	0
1854	153	93,47	9130	98	15	0	0
1855	172	94,60	9239	100	15	0	0
1856	134	93,87	9166	100	15	0	0
1857	169	89,11	8699	94	16	0	0
1858	163	89,11	8699	94	16	0	0
1859	180	84,29	8217	95	15	0	0
1860	151	69,81	6770	96	14	0	0
1861	130	69,81	6770	96	14	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1862	130	69,92	6782	97	13	0	0
1863	134	75,06	7288	100	14	0	0
1864	155	95,52	9310	109	17	0	0
1865	138	100,66	9816	112	18	0	0
1866	138	105,31	10274	116	18	0	0
1867	117	108,41	10578	119	18	0	0
1868	144	112,38	10970	122	18	0	0
1869	135	116,29	11354	126	18	0	0
1870	153	116,12	11338	125	18	0	0
1871	123	115,95	11323	124	18	0	0
1872	115	100,02	9774	104	15	0	0
1873	82	80,33	7852	81	13	0	0
1874	80	74,58	7291	75	12	0	0
1875	124	57,37	5608	58	9	0	0
1876	121	57,37	5608	58	9	0	0
1877	152	40,23	3924	43	8	0	0
1878	128	40,23	3924	43	8	0	0
1879	147	44,97	4383	50	9	0	0
1880	146	44,97	4383	50	9	0	0
1881	104	62,06	6053	67	12	0	0
1882	134	67,77	6610	73	13	0	0
1883	115	75,40	7359	81	13	0	0
1884	54	62,40	6090	67	11	0	0
1885	137	74,58	7291	75	12	0	0
1886	114	57,37	5608	58	9	0	0
1887	192	57,37	5608	58	9	0	0
1888	153	51,17	5000	50	10	0	0
1889	111	81,56	8000	70	11	0	0
1890	126	99,68	9774	85	15	0	0
1891	72	80,33	7852	81	13	0	0
1892	106	74,58	7291	75	12	0	0
1893	130	57,37	5608	58	9	0	0
1894	100	57,37	5608	58	9	0	0
1895	94	1,73	5608	58	9	0	0
1896	44	1,16	110	2	1	0	0
1897	149	1,08	100	3	1	0	0
1898	69	1,32	124	3	1	0	0
1899	67	1,67	159	3	1	0	0
1900	66	1,77	169	3	1	0	0
1901	80	1,88	180	3	1	0	0
1902	34	2,25	214	3	2	0	0
1903	56	2,40	227	4	2	0	0
1904	56	2,51	237	5	2	0	0
1905	47	2,58	244	5	2	0	0
1906	60	2,63	249	6	1	0	0
1907	51	2,60	248	5	1	0	0
1908	53	1,36	126	4	1	0	0
1909	30	1,12	102	4	1	0	0
1910	47	1,38	128	4	1	0	0
1911	43	1,40	130	4	1	0	0
1912	128	1,49	135	5	2	0	0
1913	117	1,44	130	5	2	0	0
1914	122	1,39	125	5	2	0	0
1915	114	1,33	120	4	2	0	0
1916	143	1,48	135	4	2	0	0
1917	161	1,49	136	4	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1918	169	1,50	137	4	2	0	0
1919	190	1,42	129	4	2	0	0
1920	181	1,46	135	3	2	0	0
1921	174	1,38	130	3	1	0	0
1922	196	1,44	136	3	1	0	0
1923	176	1,54	141	4	2	0	0
1924	180	1,53	140	4	2	0	0
1925	159	1,48	135	4	2	0	0
1926	183	1,52	141	3	2	0	0
1927	114	1,50	144	2	1	0	0
1928	155	1,54	145	2	2	0	0
1929	129	1,59	150	2	2	0	0
1930	155	1,44	135	2	2	0	0
1931	134	1,47	141	2	1	0	0
1932	119	1,46	140	2	1	0	0
1933	108	1,07	101	2	1	0	0
1934	147	1,20	109	3	2	0	0
1935	146	1,20	109	3	2	0	0
1936	123	1,26	122	2	0	0	0
1937	141	1,26	122	2	0	0	0
1938	154	1,48	139	2	2	0	0
1939	99	1,48	139	2	2	0	0
1940	132	1,54	143	3	2	0	0
1941	132	1,68	155	4	2	0	0
1942	122	1,68	155	4	2	0	0
1943	161	1,78	170	3	1	0	0
1944	142	1,78	170	3	1	0	0
1945	124	1,78	170	3	1	0	0
1946	137	1,38	133	3	0	0	0
1947	140	1,38	133	3	0	0	0
1948	143	1,52	144	3	1	0	0
1949	135	1,52	144	3	1	0	0
1950	133	2,06	199	4	0	0	0
1951	127	2,06	199	4	0	0	0
1952	127	2,11	205	2	1	0	0
1953	143	2,11	205	2	1	0	0
1954	135	2,11	205	2	1	0	0
1955	123	2,45	231	5	2	0	0
1956	123	2,45	231	5	2	0	0
1957	159	2,89	275	6	1	0	0
1958	134	2,89	275	6	1	0	0
1959	158	2,89	275	6	1	0	0
1960	152	3,25	311	5	2	0	0
1961	129	3,25	311	5	2	0	0
1962	123	3,58	346	5	1	0	0
1963	103	3,98	382	6	2	0	0
1964	124	3,98	382	6	2	0	0
1965	130	4,20	406	5	2	0	0
1966	152	4,20	406	5	2	0	0
1967	136	4,20	406	5	2	0	0
1968	151	4,37	418	6	3	0	0
1969	163	4,37	418	6	3	0	0
1970	161	4,37	418	6	3	0	0
1971	163	4,43	427	6	2	0	0
1972	151	4,43	427	6	2	0	0
1973	143	4,74	456	7	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
1974	152	4,74	456	7	2	0	0
1975	139	4,77	457	8	2	0	0
1976	155	4,80	458	9	2	0	0
1977	143	4,80	458	9	2	0	0
1978	150	4,69	449	8	2	0	0
1979	135	4,69	449	8	2	0	0
1980	120	4,69	449	8	2	0	0
1981	98	4,63	443	8	2	0	0
1982	129	4,63	443	8	2	0	0
1983	125	4,01	387	5	2	0	0
1984	128	4,13	397	6	2	0	0
1985	111	4,47	427	8	2	0	0
1986	133	4,52	432	8	2	0	0
1987	106	4,66	447	9	1	0	0
1988	101	5,60	538	9	2	0	0
1989	123	5,60	538	9	2	0	0
1990	127	5,60	538	9	2	0	0
1991	131	6,78	653	11	2	0	0
1992	147	6,78	653	11	2	0	0
1993	144	6,94	664	12	3	0	0
1994	141	6,94	664	12	3	0	0
1995	141	6,94	664	12	3	0	0
1996	145	6,42	616	10	3	0	0
1997	121	6,42	616	10	3	0	0
1998	113	5,89	566	10	2	0	0
1999	109	5,89	566	10	2	0	0
2000	110	5,66	540	10	3	0	0
2001	83	5,51	525	10	3	0	0
2002	96	5,43	520	10	2	0	0
2003	126	5,42	518	9	3	0	0
2004	131	5,40	517	8	3	0	0
2005	116	5,24	506	7	2	0	0
2006	137	5,00	484	6	2	0	0
2007	147	4,73	456	6	2	0	0
2008	152	3,63	346	7	2	0	0
2009	132	3,77	355	8	3	0	0
2010	139	5,13	486	9	4	0	0
2011	147	5,47	518	10	4	0	0
2012	156	5,47	518	10	4	0	0
2013	180	5,47	523	9	3	0	0
2014	144	5,48	526	9	2	0	0
2015	150	4,98	474	9	3	0	0
2016	165	4,20	397	8	3	0	0
2017	170	3,86	365	7	3	0	0
2018	173	2,82	269	4	2	0	0
2019	168	2,82	269	4	2	0	0
2020	172	2,49	236	4	2	0	0
2021	151	1,79	170	2	2	0	0
2022	153	1,79	170	2	2	0	0
2023	150	1,19	113	2	1	0	0
2024	173	1,19	113	2	1	0	0
2025	145	1,19	113	2	1	0	0
2026	141	2,78	262	6	2	0	0
2027	100	2,78	262	6	2	0	0
2028	151	2,78	262	6	2	0	0
2029	170	2,73	257	6	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2030	145	2,20	207	4	2	0	0
2031	162	2,20	207	4	2	0	0
2032	190	2,20	207	4	2	0	0
2033	178	1,53	140	4	2	0	0
2034	155	1,53	140	4	2	0	0
2035	143	1,79	170	2	2	0	0
2036	163	1,79	170	2	2	0	0
2037	153	1,79	170	2	2	0	0
2038	170	1,79	170	2	2	0	0
2039	173	2,20	207	4	2	0	0
2040	154	2,20	207	4	2	0	0
2041	165	2,20	207	4	2	0	0
2042	167	2,20	207	4	2	0	0
2043	147	1,62	156	2	1	0	0
2044	142	1,62	156	2	1	0	0
2045	118	1,62	156	2	1	0	0
2046	150	1,62	156	2	1	0	0
2047	129	1,78	165	4	2	0	0
2048	142	1,78	165	4	2	0	0
2049	148	1,78	165	4	2	0	0
2050	156	1,78	165	4	2	0	0
2051	159	1,78	165	4	2	0	0
2052	136	1,51	140	3	2	0	0
2053	156	1,51	140	3	2	0	0
2054	161	1,51	140	3	2	0	0
2055	151	1,79	170	2	2	0	0
2056	148	1,79	170	2	2	0	0
2057	148	1,79	170	2	2	0	0
2058	185	1,79	170	2	2	0	0
2059	184	1,19	113	2	1	0	0
2060	157	1,19	113	2	1	0	0
2061	142	1,19	113	2	1	0	0
2062	190	1,16	107	2	2	0	0
2063	166	1,16	107	2	2	0	0
2064	173	1,16	107	2	2	0	0
2065	177	1,79	170	2	2	0	0
2066	170	1,79	170	2	2	0	0
2067	166	1,79	170	2	2	0	0
2068	186	1,19	113	2	1	0	0
2069	189	1,19	113	2	1	0	0
2070	182	1,16	107	2	2	0	0
2071	205	1,16	107	2	2	0	0
2072	212	1,16	107	2	2	0	0
2073	188	0,88	79	2	2	0	0
2074	199	0,88	79	2	2	0	0
2075	161	1,16	107	2	2	0	0
2076	150	1,16	107	2	2	0	0
2077	202	1,16	107	2	2	0	0
2078	200	1,16	107	2	2	0	0
2079	198	2,18	199	6	3	0	0
2080	200	2,18	199	6	3	0	0
2081	198	2,18	199	6	3	0	0
2082	150	2,18	199	6	3	0	0
2083	127	5,06	483	8	3	0	0
2084	174	5,06	483	8	3	0	0
2085	175	8,44	815	10	4	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2086	171	8,44	815	10	4	0	0
2087	168	8,44	815	10	4	0	0
2088	191	9,71	940	11	4	0	0
2089	194	9,71	940	11	4	0	0
2090	185	9,71	940	11	4	0	0
2091	167	8,83	858	8	4	0	0
2092	189	8,83	858	8	4	0	0
2093	181	8,83	858	8	4	0	0
2094	140	7,43	722	7	3	0	0
2095	166	7,00	679	7	3	0	0
2096	160	6,11	594	5	3	0	0
2097	169	5,42	525	5	3	0	0
2098	179	4,89	472	5	3	0	0
2099	174	4,62	445	5	3	0	0
2100	156	4,62	445	5	3	0	0
2101	176	4,62	445	5	3	0	0
2102	197	3,20	309	3	2	0	0
2103	138	3,20	309	3	2	0	0
2104	111	2,52	241	3	2	0	0
2105	100	2,29	218	3	2	0	0
2106	183	0,43	35	2	2	0	0
2107	180	0,45	35	3	2	0	0
2108	194	0,43	33	3	2	0	0
2109	190	0,41	31	3	2	0	0
2110	199	0,45	35	3	2	0	0
2111	198	0,43	35	2	2	0	0
2112	222	0,40	33	2	1	0	0
2113	170	0,38	31	2	1	0	0
2114	165	0,27	20	2	1	0	0
2115	188	0,22	16	2	1	0	0
2116	201	0,25	18	2	1	0	0
2117	198	0,29	20	3	1	0	0
2118	162	0,31	22	3	2	0	0
2119	182	0,32	21	3	2	0	0
2120	161	0,61	50	3	2	0	0
2121	150	0,97	88	3	1	0	0
2122	167	1,09	88	10	1	0	0
2123	63	21,34	2079	20	7	0	0
2124	50	21,34	2079	20	7	0	0
2125	119	3,50	336	5	2	0	0
2126	55	2,61	246	4	3	0	0
2127	68	1,81	166	4	3	0	0
2128	71	1,28	122	2	1	0	0
2129	70	1,07	101	2	1	0	0
2130	75	1,07	101	2	1	0	0
2131	84	1,15	104	3	2	0	0
2132	79	1,11	102	2	2	0	0
2133	86	1,11	102	2	2	0	0
2134	79	1,05	94	3	2	0	0
2135	78	1,09	96	3	2	0	0
2136	79	1,29	126	1	1	0	0
2137	89	1,39	139	0	0	0	0
2138	84	1,96	182	5	2	0	0
2139	60	2,05	192	4	2	0	0
2140	56	2,33	219	4	3	0	0
2141	73	2,14	203	3	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2142	68	2,05	195	2	2	0	0
2143	86	1,75	165	3	1	0	0
2144	94	1,58	149	3	2	0	0
2145	100	2,15	203	3	2	0	0
2146	162	2,47	234	3	3	0	0
2147	197	2,47	234	3	3	0	0
2148	196	3,23	310	4	2	0	0
2149	188	3,74	360	5	2	0	0
2150	161	3,74	360	5	2	0	0
2151	195	4,16	399	5	3	0	0
2152	197	4,37	419	5	3	0	0
2153	102	4,37	419	5	3	0	0
2154	93	4,82	468	6	2	0	0
2155	110	4,82	468	6	2	0	0
2156	202	2,87	261	9	4	0	0
2157	200	2,87	261	9	4	0	0
2158	176	2,87	261	9	4	0	0
2159	215	10,18	984	11	5	0	0
2160	226	12,62	1225	12	6	0	0
2161	232	12,62	1225	12	6	0	0
2162	205	17,26	1680	16	6	0	0
2163	175	19,57	1908	18	7	0	0
2164	199	19,57	1908	18	7	0	0
2165	185	19,57	1908	18	7	0	0
2166	230	24,14	2356	20	8	0	0
2167	168	26,43	2581	22	9	0	0
2168	173	26,43	2581	22	9	0	0
2169	204	27,90	2724	23	9	0	0
2170	250	32,31	3154	27	11	0	0
2171	180	33,60	3283	27	11	0	0
2172	170	36,17	3540	27	10	0	0
2173	187	37,45	3668	28	10	0	0
2174	195	37,45	3668	28	10	0	0
2175	176	38,20	3742	28	10	0	0
2176	184	40,46	3962	30	11	0	0
2177	212	40,46	3962	30	11	0	0
2178	208	40,46	3962	30	11	0	0
2179	189	40,38	3953	31	11	0	0
2180	195	40,38	3953	31	11	0	0
2181	199	40,38	3953	31	11	0	0
2182	210	39,93	3907	31	11	0	0
2183	173	38,59	3767	32	13	0	0
2184	188	38,59	3767	32	13	0	0
2185	173	37,34	3648	30	12	0	0
2186	167	36,51	3569	29	12	0	0
2187	166	36,51	3569	29	12	0	0
2188	168	34,80	3396	29	12	0	0
2189	154	33,08	3223	30	11	0	0
2190	162	32,38	3154	30	11	0	0
2191	128	30,29	2946	29	11	0	0
2192	181	30,29	2946	29	11	0	0
2193	151	28,31	2749	29	11	0	0
2194	183	27,65	2683	29	11	0	0
2195	231	27,65	2683	29	11	0	0
2196	210	27,65	2683	29	11	0	0
2197	231	28,01	2715	29	12	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2198	232	28,73	2781	31	14	0	0
2199	150	28,73	2781	31	14	0	0
2200	182	29,02	2806	33	14	0	0
2201	177	29,31	2831	34	14	0	0
2202	187	22,87	2191	34	13	0	0
2203	177	20,20	1926	34	12	0	0
2204	171	18,62	1773	31	12	0	0
2205	168	18,62	1773	31	12	0	0
2206	170	19,05	1818	31	12	0	0
2207	247	20,80	1999	28	11	0	0
2208	209	21,67	2090	27	11	0	0
2209	230	21,67	2090	27	11	0	0
2210	218	19,36	1862	26	10	0	0
2211	218	17,82	1710	25	10	0	0
2212	227	17,82	1710	25	10	0	0
2213	218	17,82	1710	25	10	0	0
2214	225	14,45	1388	19	8	0	0
2215	181	12,76	1226	17	7	0	0
2216	203	12,76	1226	17	7	0	0
2217	188	12,76	1226	17	7	0	0
2218	119	4,48	427	7	3	0	0
2219	184	1,48	139	3	2	0	0
2220	80	1,33	124	3	1	0	0
2221	95	1,35	124	3	2	0	0
2222	115	1,36	125	3	2	0	0
2223	123	1,43	132	3	2	0	0
2224	100	1,47	137	2	2	0	0
2225	134	1,31	119	3	2	0	0
2226	125	0,98	83	4	3	0	0
2227	107	0,81	65	5	3	0	0
2228	98	0,87	71	4	3	0	0
2229	101	0,90	75	4	3	0	0
2230	107	2,18	199	6	3	0	0
2231	94	2,82	261	7	3	0	0
2232	74	3,89	361	9	4	0	0
2233	61	4,42	410	11	5	0	0
2234	113	4,75	443	10	5	0	0
2235	104	5,07	475	10	5	0	0
2236	89	5,29	494	11	6	0	0
2237	115	6,15	572	15	6	0	0
2238	115	2,90	269	6	4	0	0
2239	92	2,09	193	4	3	0	0
2240	151	2,01	185	4	3	0	0
2241	163	1,89	173	5	3	0	0
2242	144	1,89	173	5	3	0	0
2243	167	1,89	169	7	3	0	0
2244	168	1,89	169	6	3	0	0
2245	167	1,90	171	6	3	0	0
2246	191	1,91	172	6	3	0	0
2247	196	1,91	172	6	3	0	0
2248	201	1,91	172	6	3	0	0
2249	201	1,91	174	6	3	0	0
2250	195	1,92	178	5	2	0	0
2251	150	1,92	178	5	2	0	0
2252	164	1,95	178	5	3	0	0
2253	198	1,96	177	6	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2254	182	1,96	177	6	3	0	0
2255	165	1,98	179	6	3	0	0
2256	193	2,00	183	5	3	0	0
2257	176	2,00	183	5	3	0	0
2258	175	2,29	210	6	3	0	0
2259	164	3,15	292	8	3	0	0
2260	164	3,15	292	8	3	0	0
2261	155	3,39	315	9	3	0	0
2262	164	4,16	385	11	4	0	0
2263	168	4,16	385	11	4	0	0
2264	113	4,68	433	12	5	0	0
2265	190	5,22	482	13	6	0	0
2266	142	5,39	499	13	6	0	0
2267	158	5,73	532	14	6	0	0
2268	182	5,73	532	14	6	0	0
2269	168	5,71	531	13	6	0	0
2270	209	5,62	527	12	5	0	0
2271	178	5,61	526	12	5	0	0
2272	165	5,37	504	11	5	0	0
2273	166	4,69	439	9	5	0	0
2274	167	4,69	439	9	5	0	0
2275	62	4,12	378	10	6	0	0
2276	143	3,91	357	10	6	0	0
2277	64	3,57	328	10	4	0	0
2278	167	3,32	311	7	3	0	0
2279	223	3,32	311	7	3	0	0
2280	170	3,44	317	9	4	0	0
2281	92	3,33	310	8	3	0	0
2282	98	3,19	298	7	3	0	0
2283	63	3,10	289	7	3	0	0
2284	135	3,08	287	7	3	0	0
2285	222	3,08	287	7	3	0	0
2286	174	4,11	384	9	4	0	0
2287	90	5,49	514	12	5	0	0
2288	99	6,84	643	14	6	0	0
2289	102	8,25	773	17	8	0	0
2290	178	8,91	837	18	8	0	0
2291	212	8,39	785	18	8	0	0
2292	150	7,51	705	15	7	0	0
2293	180	7,23	679	14	7	0	0
2294	119	7,17	668	15	8	0	0
2295	198	7,17	668	15	8	0	0
2296	226	7,06	658	16	7	0	0
2297	131	7,01	651	17	7	0	0
2298	90	6,12	573	14	5	0	0
2299	103	6,12	573	14	5	0	0
2300	243	5,98	559	14	5	0	0
2301	262	5,58	517	14	6	0	0
2302	131	5,31	490	14	6	0	0
2303	125	5,34	493	14	6	0	0
2304	115	5,90	549	14	6	0	0
2305	195	5,83	542	14	6	0	0
2306	200	5,71	530	14	6	0	0
2307	265	5,68	526	13	7	0	0
2308	131	5,21	483	12	6	0	0
2309	182	4,27	395	9	6	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2310	167	4,27	395	9	6	0	0
2311	206	3,97	365	9	6	0	0
2312	270	2,98	275	7	4	0	0
2313	106	2,98	275	7	4	0	0
2314	100	1,81	166	4	3	0	0
2315	237	1,52	138	3	3	0	0
2316	218	1,45	131	3	3	0	0
2317	265	1,34	123	3	2	0	0
2318	250	1,34	123	3	2	0	0
2319	233	1,34	123	3	2	0	0
2320	247	1,36	124	2	3	0	0
2321	220	1,36	124	2	3	0	0
2322	263	1,36	124	2	3	0	0
2323	251	1,36	124	2	3	0	0
2324	250	1,54	140	3	3	0	0
2325	242	1,69	156	4	2	0	0
2326	193	1,69	156	4	2	0	0
2327	244	1,69	156	4	2	0	0
2328	203	2,03	186	5	3	0	0
2329	178	2,36	215	7	3	0	0
2330	200	2,36	215	7	3	0	0
2331	209	2,36	215	7	3	0	0
2332	185	2,11	186	8	4	0	0
2333	175	2,11	186	8	4	0	0
2334	191	2,11	186	8	4	0	0
2335	216	2,11	186	8	4	0	0
2336	196	3,35	309	7	5	0	0
2337	169	3,35	309	7	5	0	0
2338	192	3,35	309	7	5	0	0
2339	211	3,84	362	6	4	0	0
2340	181	3,84	362	6	4	0	0
2341	189	4,14	389	8	4	0	0
2342	225	4,61	428	11	5	0	0
2343	225	4,61	428	11	5	0	0
2344	213	4,61	428	11	5	0	0
2345	187	4,95	462	11	5	0	0
2346	163	5,18	484	10	6	0	0
2347	245	5,18	484	10	6	0	0
2348	248	5,18	484	10	6	0	0
2349	265	5,37	501	11	6	0	0
2350	256	5,58	518	13	6	0	0
2351	231	5,58	518	13	6	0	0
2352	246	5,58	518	13	6	0	0
2353	220	5,56	518	12	6	0	0
2354	215	5,52	518	10	6	0	0
2355	148	5,52	518	10	6	0	0
2356	229	5,58	524	10	6	0	0
2357	218	5,72	536	11	6	0	0
2358	225	5,72	536	11	6	0	0
2359	162	6,33	590	12	8	0	0
2360	135	6,33	590	12	8	0	0
2361	153	6,33	590	12	8	0	0
2362	150	8,36	777	18	10	0	0
2363	187	8,36	777	18	10	0	0
2364	186	8,36	777	18	10	0	0
2365	182	9,26	860	20	11	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2366	172	10,66	985	24	14	0	0
2367	181	10,66	985	24	14	0	0
2368	201	10,66	985	24	14	0	0
2369	191	11,70	1087	22	16	0	0
2370	197	11,70	1087	22	16	0	0
2371	157	11,70	1087	22	16	0	0
2372	183	12,04	1118	24	16	0	0
2373	108	12,21	1133	25	16	0	0
2374	202	12,30	1140	26	16	0	0
2375	183	12,35	1145	26	16	0	0
2376	174	12,35	1145	26	16	0	0
2377	177	12,34	1144	26	16	0	0
2378	148	12,30	1142	25	16	0	0
2379	175	12,30	1142	25	16	0	0
2380	163	11,25	1037	25	16	0	0
2381	145	10,73	985	25	16	0	0
2382	180	10,73	985	25	16	0	0
2383	149	10,34	950	24	15	0	0
2384	115	10,19	938	24	14	0	0
2385	151	10,42	965	23	13	0	0
2386	155	10,46	974	22	12	0	0
2387	123	10,22	952	21	12	0	0
2388	144	9,54	886	20	12	0	0
2389	115	9,54	886	20	12	0	0
2390	119	8,90	820	21	12	0	0
2391	139	8,90	820	21	12	0	0
2392	144	8,63	799	19	11	0	0
2393	101	8,03	743	17	11	0	0
2394	102	7,70	714	16	10	0	0
2395	98	7,40	689	15	9	0	0
2396	202	7,26	676	14	9	0	0
2397	222	7,26	676	14	9	0	0
2398	211	7,06	656	14	9	0	0
2399	92	6,69	618	15	9	0	0
2400	234	6,69	618	15	9	0	0
2401	203	4,71	435	11	6	0	0
2402	232	4,71	435	11	6	0	0
2403	149	4,38	404	10	6	0	0
2404	106	3,92	361	8	6	0	0
2405	145	4,09	377	9	6	0	0
2406	143	4,21	389	9	6	0	0
2407	183	4,21	389	9	6	0	0
2408	187	4,21	389	9	6	0	0
2409	100	8,36	777	18	10	0	0
2410	147	9,26	860	20	11	0	0
2411	145	10,66	985	24	14	0	0
2412	185	10,66	985	24	14	0	0
2413	115	10,66	985	24	14	0	0
2414	123	11,70	1087	22	16	0	0
2415	129	11,70	1087	22	16	0	0
2416	183	11,70	1087	22	16	0	0
2417	191	12,04	1118	24	16	0	0
2418	194	12,21	1133	25	16	0	0
2419	188	12,30	1140	26	16	0	0
2420	181	12,35	1145	26	16	0	0
2421	168	12,35	1145	26	16	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2422	202	12,34	1144	26	16	0	0
2423	197	12,30	1142	25	16	0	0
2424	195	12,30	1142	25	16	0	0
2425	182	11,25	1037	25	16	0	0
2426	198	10,73	985	25	16	0	0
2427	198	10,73	985	25	16	0	0
2428	148	10,34	950	24	15	0	0
2429	188	10,19	938	24	14	0	0
2430	180	10,42	965	23	13	0	0
2431	173	10,46	974	22	12	0	0
2432	179	10,22	952	21	12	0	0
2433	160	9,54	886	20	12	0	0
2434	188	9,54	886	20	12	0	0
2435	157	8,90	820	21	12	0	0
2436	168	8,90	820	21	12	0	0
2437	166	8,63	799	19	11	0	0
2438	200	8,03	743	17	11	0	0
2439	223	7,70	714	16	10	0	0
2440	205	7,40	689	15	9	0	0
2441	224	7,26	676	14	9	0	0
2442	210	7,26	676	14	9	0	0
2443	212	7,06	656	14	9	0	0
2444	177	6,69	618	15	9	0	0
2445	175	6,69	618	15	9	0	0
2446	170	4,71	435	11	6	0	0
2447	112	4,71	435	11	6	0	0
2448	119	4,38	404	10	6	0	0
2449	233	3,92	361	8	6	0	0
2450	209	4,09	377	9	6	0	0
2451	187	4,21	389	9	6	0	0
2452	218	4,21	389	9	6	0	0
2453	204	4,21	389	9	6	0	0
2454	139	8,36	777	18	10	0	0
2455	108	9,26	860	20	11	0	0
2456	112	10,66	985	24	14	0	0
2457	106	10,66	985	24	14	0	0
2458	146	10,66	985	24	14	0	0
2459	227	11,70	1087	22	16	0	0
2460	213	11,70	1087	22	16	0	0
2461	170	11,70	1087	22	16	0	0
2462	164	12,04	1118	24	16	0	0
2463	182	12,57	1133	25	16	5	2
2464	181	12,89	1140	26	16	9	3
2465	174	24,72	2109	72	60	10	4
2466	191	24,87	2109	72	60	13	4
2467	189	29,24	2465	93	76	13	4
2468	227	35,69	2999	124	100	14	3
2469	183	24,87	2109	72	60	13	5
2470	166	24,70	2109	72	60	12	3
2471	141	29,20	2465	93	76	13	2
2472	177	35,74	2999	124	100	13	2
2473	161	35,73	2999	124	100	14	3
2474	176	35,79	2999	124	100	12	6
2475	170	42,93	3746	112	96	13	4
2476	217	42,93	3746	112	96	13	4
2477	173	40,30	3530	103	88	14	3

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2478	173	36,86	3229	89	78	13	5
2479	174	36,69	3229	89	78	12	3
2480	169	40,01	3520	97	83	13	2
2481	183	40,01	3520	97	83	13	2
2482	125	44,90	3972	106	91	14	3
2483	128	47,64	4225	110	94	12	6
2484	166	46,47	4127	106	90	13	4
2485	169	46,19	4103	105	89	13	4
2486	210	46,09	4103	105	89	14	3
2487	209	46,19	4103	105	89	13	5
2488	205	36,51	3236	84	72	12	3
2489	216	33,47	2948	77	66	13	2
2490	221	33,47	2948	77	66	13	2
2491	236	32,32	2843	75	64	14	3
2492	253	31,62	2773	73	63	12	6
2493	215	31,61	2773	73	63	13	4
2494	268	31,61	2773	73	63	13	4
2495	162	33,37	2950	72	67	14	3
2496	176	34,40	3038	72	69	13	5
2497	192	34,24	3038	72	69	12	3
2498	204	34,36	3038	72	69	13	2
2499	216	37,43	3310	84	74	13	2
2500	172	38,47	3400	89	76	14	3
2501	195	40,27	3564	92	78	12	6
2502	162	46,98	4220	106	89	13	0
2503	195	27,60	2401	69	55	13	4
2504	140	27,60	2401	69	55	13	4
2505	153	29,83	2612	75	59	14	3
2506	181	30,00	2621	71	61	13	5
2507	191	29,72	2610	71	61	12	3
2508	160	25,17	2197	54	52	13	2
2509	125	25,17	2197	54	52	13	2
2510	100	25,35	2213	54	53	14	3
2511	25	26,99	2368	56	53	12	6
2512	29	9,62	806	24	22	5	2
2513	125	9,62	806	24	22	5	2
2514	136	8,39	690	19	21	5	2
2515	102	7,85	646	19	19	5	2
2516	100	5,79	472	16	14	4	2
2517	143	5,85	473	16	14	4	2
2518	173	5,83	474	15	15	3	2
2519	194	5,83	474	15	15	3	2
2520	148	6,18	502	16	14	4	2
2521	119	6,18	502	16	14	4	2
2522	153	6,18	502	16	14	4	2
2523	104	5,59	457	12	13	3	3
2524	131	5,59	457	12	13	3	3
2525	116	4,65	385	11	10	3	1
2526	120	4,65	385	11	10	3	1
2527	142	4,12	327	10	9	0	2
2528	132	4,12	327	10	9	0	2
2529	136	3,65	281	11	8	1	2
2530	154	3,45	265	11	8	1	2
2531	151	3,45	265	11	8	1	2
2532	161	3,29	242	9	9	2	2
2533	152	3,29	242	9	9	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2534	181	3,29	245	9	8	2	2
2535	123	3,30	252	9	6	2	2
2536	172	3,30	252	9	6	2	2
2537	182	3,30	252	9	6	2	2
2538	140	3,14	242	9	7	2	2
2539	172	3,14	242	9	7	2	2
2540	144	3,09	237	7	8	2	2
2541	160	3,09	237	7	8	2	2
2542	161	2,99	231	8	6	1	2
2543	83	2,99	231	8	6	1	2
2544	41	3,02	232	9	6	2	1
2545	50	4,90	393	11	10	3	2
2546	52	4,90	393	11	10	3	2
2547	230	4,90	393	11	10	3	2
2548	102	4,92	403	11	10	2	2
2549	108	4,87	398	12	11	2	2
2550	111	4,87	398	12	11	2	2
2551	124	4,75	379	13	10	2	2
2552	197	4,75	379	13	10	2	2
2553	112	4,75	379	13	10	2	2
2554	133	3,36	234	11	11	4	2
2555	114	3,36	234	11	11	4	2
2556	100	3,37	240	11	9	4	2
2557	99	3,37	240	11	9	4	2
2558	91	4,58	363	12	10	3	2
2559	68	4,15	342	11	9	0	2
2560	31	3,98	312	11	9	2	2
2561	18	3,57	280	10	8	2	1
2562	12	3,65	277	10	8	3	2
2563	91	3,57	280	9	7	3	2
2564	143	3,57	280	9	7	3	2
2565	175	3,57	280	9	7	3	2
2566	150	3,42	261	7	7	2	2
2567	112	3,42	261	7	7	2	2
2568	153	3,26	246	8	6	2	2
2569	151	3,08	239	8	6	2	2
2570	154	3,08	232	8	6	2	2
2571	111	4,06	323	10	8	2	2
2572	115	4,55	369	11	10	2	2
2573	108	5,04	418	13	9	2	2
2574	68	5,29	443	14	8	2	2
2575	68	5,00	391	13	10	3	3
2576	30	5,59	467	12	9	1	2
2577	95	5,29	438	12	9	2	2
2578	45	5,21	429	11	9	2	3
2579	153	5,17	425	11	9	2	3
2580	131	5,05	414	11	9	3	2
2581	151	5,02	412	11	9	2	2
2582	145	4,89	406	10	9	0	2
2583	134	4,96	433	12	9	0	1
2584	138	5,03	452	14	10	0	0
2585	140	5,03	452	14	10	0	0
2586	114	5,41	472	13	10	1	1
2587	153	5,99	503	12	9	3	2
2588	112	5,67	476	11	9	3	2
2589	130	4,26	344	9	7	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2590	91	3,48	265	8	7	2	2
2591	145	3,80	296	11	8	2	3
2592	126	3,91	306	11	8	2	3
2593	160	4,94	410	11	7	1	3
2594	127	5,40	451	11	7	1	2
2595	68	3,55	285	7	5	1	2
2596	40	1,65	106	4	3	1	2
2597	37	7,19	614	15	10	2	2
2598	49	7,15	614	15	10	1	2
2599	47	7,10	614	15	10	1	2
2600	69	7,03	609	15	11	1	1
2601	26	6,85	573	17	10	1	2
2602	55	6,31	573	17	10	0	0
2603	69	6,31	573	17	10	0	0
2604	24	6,31	573	17	10	0	0
2605	30	7,47	688	18	10	0	0
2606	6	7,47	688	18	10	0	0
2607	113	6,68	614	15	10	0	0
2608	245	6,68	614	15	10	0	0
2609	247	6,68	614	15	10	0	0
2610	223	6,66	609	15	11	0	0
2611	210	6,31	573	17	10	0	0
2612	99	6,31	573	17	10	0	0
2613	200	6,31	573	17	10	0	0
2614	203	6,31	573	17	10	0	0
2615	201	7,47	688	18	10	0	0
2616	188	7,47	688	18	10	0	0
2617	174	7,47	688	18	10	0	0
2618	180	7,68	712	17	10	0	0
2619	193	7,79	724	16	10	0	0
2620	222	7,79	724	16	10	0	0
2621	223	7,79	724	16	10	0	0
2622	180	8,10	755	18	9	0	0
2623	157	8,10	755	18	9	0	0
2624	150	8,10	755	18	9	0	0
2625	183	8,31	767	17	9	0	0
2626	189	9,16	819	15	9	2	2
2627	233	9,16	819	15	9	2	2
2628	125	9,57	880	17	9	1	1
2629	119	9,98	942	18	9	0	0
2630	134	11,51	1071	18	9	1	1
2631	221	12,28	1136	18	8	2	2
2632	160	12,28	1136	18	8	2	2
2633	143	12,96	1199	19	9	2	2
2634	137	14,31	1324	20	10	1	2
2635	70	15,88	1473	23	10	2	2
2636	55	16,72	1558	22	10	2	2
2637	57	17,77	1670	24	10	2	1
2638	88	18,03	1691	24	10	2	1
2639	65	18,93	1764	26	11	3	2
2640	80	19,31	1800	27	11	2	2
2641	36	17,87	1651	28	12	2	1
2642	101	15,41	1414	28	12	1	1
2643	81	20,42	1906	29	12	2	2
2644	100	20,65	1929	28	12	2	2
2645	106	20,77	1940	28	12	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2646	123	20,72	1942	28	12	2	2
2647	134	20,69	1943	27	12	3	2
2648	129	21,19	1991	28	12	2	2
2649	158	21,44	2015	29	12	1	2
2650	102	21,40	2027	27	11	2	1
2651	78	21,32	2014	28	11	2	1
2652	93	21,24	2000	29	12	2	2
2653	147	21,27	2001	29	12	2	2
2654	146	21,32	2001	29	12	2	2
2655	119	21,49	2018	30	12	2	2
2656	55	21,72	2043	30	11	2	2
2657	91	21,75	2043	29	11	2	2
2658	99	21,92	2060	29	11	2	2
2659	128	22,03	2072	29	11	2	2
2660	144	22,03	2072	29	11	2	2
2661	158	22,00	2078	29	11	2	2
2662	90	21,98	2080	28	11	2	2
2663	50	22,41	2119	30	12	2	3
2664	63	21,13	1984	27	10	1	2
2665	124	20,76	1943	27	10	1	2
2666	132	20,58	1922	27	9	1	2
2667	161	20,58	1922	27	9	1	2
2668	78	15,71	1444	23	10	2	3
2669	91	17,65	1649	22	10	2	2
2670	107	18,62	1752	22	10	2	2
2671	137	18,40	1733	21	9	2	2
2672	130	17,96	1694	19	8	3	1
2673	141	17,79	1680	19	9	2	2
2674	148	17,75	1676	19	9	2	2
2675	121	17,70	1672	19	9	2	2
2676	94	17,53	1654	18	8	1	2
2677	128	17,34	1638	17	7	1	2
2678	115	17,25	1631	17	7	1	1
2679	125	17,25	1631	17	7	1	1
2680	181	16,15	1564	17	8	0	0
2681	157	16,15	1564	17	8	0	0
2682	117	16,18	1548	17	8	1	1
2683	65	16,22	1525	16	7	2	2
2684	84	15,84	1496	16	7	1	2
2685	139	15,65	1482	17	7	0	2
2686	152	15,13	1417	17	7	2	2
2687	172	14,87	1384	17	7	2	2
2688	107	14,25	1330	16	7	2	2
2689	16	11,92	1121	15	7	2	1
2690	79	11,01	1032	14	6	2	1
2691	27	9,26	861	11	6	2	2
2692	60	9,14	847	11	5	2	2
2693	33	8,24	750	12	5	2	2
2694	79	7,13	644	10	5	2	2
2695	32	7,25	658	10	4	1	1
2696	82	7,23	658	11	4	2	1
2697	48	7,23	659	11	4	2	1
2698	59	7,18	652	10	4	2	1
2699	64	6,97	628	10	4	2	1
2700	11	6,77	611	10	4	1	1
2701	48	6,72	609	9	4	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2702	38	5,82	511	9	5	1	2
2703	124	4,98	425	10	5	2	2
2704	86	4,98	425	10	5	2	2
2705	12	7,56	679	11	4	1	1
2706	24	7,95	725	10	5	1	2
2707	244	7,97	731	10	5	1	1
2708	234	7,97	731	10	5	1	1
2709	197	7,97	731	10	5	1	1
2710	172	8,51	772	11	5	2	2
2711	200	8,51	772	11	5	2	2
2712	233	8,51	772	11	5	2	2
2713	211	8,51	772	11	5	2	2
2714	263	9,26	858	11	5	0	2
2715	208	9,26	858	11	5	0	2
2716	217	9,26	858	11	5	0	2
2717	260	9,26	858	11	5	0	2
2718	199	9,74	941	11	5	0	0
2719	197	9,74	941	11	5	0	0
2720	238	9,74	941	11	5	0	0
2721	204	10,95	1011	13	5	2	2
2722	238	10,95	1011	13	5	2	2
2723	253	10,95	1011	13	5	2	2
2724	236	11,10	1026	13	5	2	2
2725	231	11,54	1083	12	4	1	1
2726	241	11,54	1083	12	4	1	1
2727	139	7,23	646	9	4	1	1
2728	231	7,56	677	10	4	1	1
2729	265	8,17	740	12	5	2	1
2730	214	8,17	740	12	5	2	1
2731	183	8,17	740	12	5	2	1
2732	143	9,63	884	15	5	0	2
2733	95	11,37	1051	17	5	1	2
2734	125	11,37	1051	17	5	1	2
2735	175	11,37	1051	17	5	1	2
2736	88	13,86	1286	20	5	1	2
2737	109	14,59	1361	21	5	0	2
2738	105	14,97	1399	22	6	0	2
2739	76	15,19	1465	21	6	0	0
2740	99	15,33	1475	21	6	0	0
2741	154	15,97	1513	22	6	2	0
2742	109	16,11	1523	22	6	2	0
2743	80	16,40	1545	20	6	0	2
2744	130	16,40	1545	20	6	0	2
2745	110	16,64	1576	21	6	1	1
2746	156	16,64	1576	21	6	1	1
2747	111	16,64	1576	21	6	1	1
2748	116	17,29	1625	22	7	2	1
2749	148	17,29	1625	22	7	2	1
2750	58	12,15	1123	23	6	1	2
2751	82	15,52	1457	23	7	1	2
2752	148	18,89	1792	22	7	2	2
2753	202	18,89	1792	22	7	2	2
2754	236	18,89	1792	22	7	2	2
2755	204	19,37	1823	25	7	2	2
2756	157	19,37	1823	25	7	2	2
2757	168	19,37	1823	25	7	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2758	120	11,92	1118	16	4	0	3
2759	236	11,92	1118	16	4	0	3
2760	203	11,57	1083	16	4	0	2
2761	140	11,25	1049	17	4	0	1
2762	135	11,34	1056	17	5	1	1
2763	70	11,46	1063	18	5	2	1
2764	102	11,96	1109	18	5	2	1
2765	69	12,62	1176	18	6	1	1
2766	58	13,19	1231	19	6	0	1
2767	41	13,58	1264	20	6	1	2
2768	16	13,28	1254	17	5	0	2
2769	35	11,29	1035	16	5	1	2
2770	172	12,33	1146	16	6	2	2
2771	238	12,11	1134	16	5	1	2
2772	268	11,74	1110	16	4	1	1
2773	198	11,74	1110	16	4	1	1
2774	160	12,12	1140	16	4	1	1
2775	71	13,09	1231	16	6	1	1
2776	141	13,09	1231	16	6	1	1
2777	135	13,09	1231	16	6	1	1
2778	223	13,60	1273	16	6	1	1
2779	182	14,63	1359	17	7	0	2
2780	156	14,78	1381	17	6	0	2
2781	59	15,59	1472	18	6	1	2
2782	88	15,59	1472	18	6	1	2
2783	142	15,69	1469	19	7	2	1
2784	123	15,54	1462	18	6	1	1
2785	77	15,43	1447	18	6	0	1
2786	221	15,43	1447	18	6	0	1
2787	144	15,43	1447	18	6	0	1
2788	187	14,48	1355	17	6	2	2
2789	81	13,90	1295	16	6	2	2
2790	78	12,81	1200	14	4	2	1
2791	145	12,89	1210	12	4	1	2
2792	178	12,70	1200	12	4	1	2
2793	189	12,65	1195	12	4	1	2
2794	201	12,70	1200	12	4	1	2
2795	159	12,50	1180	12	4	1	2
2796	146	12,59	1189	12	4	1	2
2797	163	12,74	1195	12	4	1	2
2798	157	12,77	1198	12	4	1	2
2799	159	13,03	1222	13	4	1	2
2800	155	13,09	1225	13	4	2	2
2801	143	13,08	1224	13	4	2	2
2802	158	12,79	1200	13	5	1	2
2803	168	12,84	1200	14	5	2	3
2804	163	12,84	1200	14	5	2	3
2805	145	13,24	1240	14	5	2	3
2806	143	12,81	1200	14	4	2	3
2807	159	19,73	1900	12	4	2	2
2808	165	19,78	1905	12	4	2	2
2809	173	19,83	1910	12	4	2	2
2810	115	19,93	1920	12	4	2	2
2811	132	19,87	1910	14	4	2	2
2812	92	19,83	1910	14	4	1	2
2813	119	20,03	1930	14	4	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2814	146	20,10	1940	14	4	1	2
2815	115	20,20	1950	14	4	1	2
2816	76	18,72	1800	14	4	2	1
2817	54	18,22	1750	14	4	2	1
2818	83	4,02	338	9	4	1	1
2819	138	4,72	405	9	3	0	2
2820	171	4,99	427	10	3	1	2
2821	148	4,73	402	10	3	2	1
2822	114	4,61	390	10	3	2	1
2823	87	5,32	469	10	3	1	2
2824	141	5,63	509	9	3	1	2
2825	150	5,63	509	9	3	1	2
2826	155	5,86	521	11	5	2	1
2827	135	5,94	529	11	5	2	1
2828	184	5,74	541	11	5	0	0
2829	102	5,74	541	11	5	0	0
2830	71	6,00	526	9	4	2	2
2831	59	6,00	531	9	5	1	2
2832	110	5,69	507	8	4	1	2
2833	114	5,69	507	8	4	1	2
2834	131	4,91	427	8	3	2	2
2835	141	4,91	427	8	3	2	2
2836	66	4,10	346	5	2	2	2
2837	85	4,10	346	5	2	2	2
2838	108	3,48	281	6	2	2	2
2839	55	3,13	237	5	3	2	2
2840	81	2,98	233	5	2	2	2
2841	62	2,91	231	5	2	2	2
2842	76	2,90	232	4	3	1	2
2843	70	2,75	208	4	2	1	2
2844	85	3,05	244	4	3	2	2
2845	68	3,20	259	6	3	1	2
2846	157	2,55	200	5	3	1	2
2847	91	3,12	250	5	3	2	2
2848	108	3,18	260	5	3	2	2
2849	150	3,58	300	5	3	2	2
2850	166	3,78	320	5	3	1	1
2851	120	3,83	325	5	3	1	1
2852	112	3,96	333	5	3	1	1
2853	132	4,06	334	5	3	1	2
2854	80	4,07	335	5	3	1	2
2855	133	4,10	336	6	3	1	2
2856	146	4,11	337	6	3	1	2
2857	126	3,97	339	6	2	1	1
2858	132	3,97	340	6	2	2	1
2859	71	4,10	345	6	2	2	1
2860	35	4,03	335	5	2	2	2
2861	51	4,12	350	5	3	2	2
2862	118	4,33	355	7	3	3	1
2863	87	4,31	366	5	2	1	2
2864	98	4,29	368	4	3	1	1
2865	127	3,97	328	5	4	2	1
2866	87	4,86	410	8	4	1	2
2867	167	5,32	457	10	4	1	2
2868	103	5,88	519	9	4	1	1
2869	112	6,46	576	9	6	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2870	145	6,95	619	9	5	1	2
2871	139	7,14	642	8	4	1	2
2872	129	8,09	728	10	5	2	1
2873	159	8,35	756	11	5	2	1
2874	182	8,84	794	10	5	2	1
2875	109	8,75	808	11	5	1	2
2876	106	8,84	813	11	5	1	2
2877	109	9,05	831	11	6	1	1
2878	127	9,39	863	10	6	1	1
2879	107	9,94	912	10	5	1	3
2880	93	8,93	822	9	5	2	1
2881	116	8,73	790	11	5	2	2
2882	102	8,58	780	10	4	2	2
2883	35	8,48	770	10	4	2	2
2884	12	8,49	775	10	4	2	2
2885	21	6,30	550	8	4	1	2
2886	12	6,25	544	10	5	2	1
2887	31	6,23	561	10	5	1	2
2888	10	7,06	622	11	5	2	2
2889	15	7,40	659	11	6	2	2
2890	22	7,51	679	12	5	1	1
2891	39	7,66	730	11	6	0	0
2892	10	8,80	808	12	5	2	1
2893	18	10,42	954	17	7	1	2
2894	90	9,45	857	18	8	1	2
2895	221	11,04	1011	15	9	1	2
2896	171	11,04	1011	15	9	1	2
2897	146	11,61	1067	15	9	0	2
2898	77	11,80	1085	15	9	0	2
2899	141	12,95	1198	19	9	1	2
2900	153	13,68	1274	21	10	2	2
2901	121	14,39	1336	21	10	2	2
2902	150	15,46	1429	20	11	2	2
2903	123	15,46	1429	20	11	2	2
2904	140	16,74	1562	23	11	2	3
2905	125	16,74	1562	23	11	2	3
2906	145	17,11	1603	23	11	2	2
2907	137	17,67	1666	22	12	2	1
2908	135	18,09	1702	23	12	2	1
2909	148	18,96	1774	24	12	2	2
2910	112	19,69	1843	25	13	2	2
2911	105	20,36	1912	26	13	2	2
2912	138	20,65	1933	26	13	3	2
2913	124	21,42	2016	25	13	3	2
2914	126	21,63	2037	25	13	3	2
2915	156	21,63	2037	25	13	3	2
2916	116	22,33	2099	26	14	4	2
2917	143	24,16	2284	28	15	4	1
2918	116	24,48	2308	29	16	4	1
2919	101	25,54	2404	30	17	1	2
2920	55	26,05	2452	30	17	0	2
2921	84	26,77	2533	31	17	1	2
2922	51	23,83	2241	34	16	3	1
2923	117	23,13	2168	34	16	4	1
2924	89	28,30	2682	30	15	4	2
2925	109	28,30	2682	30	15	4	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2926	99	28,03	2657	30	16	4	2
2927	141	27,47	2621	30	16	3	2
2928	148	27,76	2641	31	16	4	2
2929	94	28,04	2662	32	16	4	2
2930	112	28,65	2715	32	16	4	2
2931	117	29,19	2768	31	17	4	2
2932	108	29,68	2816	32	17	4	2
2933	100	30,96	2936	34	17	4	2
2934	90	32,47	3081	35	17	4	1
2935	98	32,83	3108	36	18	4	2
2936	151	33,93	3215	38	19	4	2
2937	64	34,70	3282	38	20	5	2
2938	61	36,01	3418	38	20	5	2
2939	54	37,83	3605	40	21	5	2
2940	106	38,55	3676	42	22	5	1
2941	102	38,71	3694	43	22	5	1
2942	155	38,71	3694	43	22	5	1
2943	120	38,76	3695	42	23	5	2
2944	73	38,23	3669	42	23	2	1
2945	88	37,84	3622	40	21	3	1
2946	133	37,72	3607	39	20	4	1
2947	58	36,87	3501	39	20	5	2
2948	102	33,76	3204	42	19	4	2
2949	124	33,44	3172	42	19	4	2
2950	90	32,79	3107	42	19	4	2
2951	111	33,08	3127	42	19	4	2
2952	110	32,72	3095	42	19	4	2
2953	141	32,30	3056	42	18	4	2
2954	133	31,91	3014	42	18	4	2
2955	138	31,49	2973	43	18	3	2
2956	89	31,49	2973	43	18	3	2
2957	96	30,99	2934	41	17	4	2
2958	81	31,15	2946	42	18	4	2
2959	108	31,30	2963	41	19	2	2
2960	109	31,81	3024	42	19	0	1
2961	116	27,85	2634	37	16	2	1
2962	154	21,84	2041	30	13	3	2
2963	180	20,74	1950	22	13	2	1
2964	150	20,21	1900	20	13	2	1
2965	147	20,57	1940	18	13	2	1
2966	98	20,65	1945	20	14	2	2
2967	144	20,74	1950	20	14	2	2
2968	89	20,86	1956	21	14	2	2
2969	121	21,19	1989	21	14	2	2
2970	129	21,04	1980	20	14	2	2
2971	164	21,06	1985	21	14	2	1
2972	122	21,14	1987	22	14	2	2
2973	94	19,70	1850	25	11	2	2
2974	101	20,73	1932	30	14	3	2
2975	108	65,05	6214	71	33	5	3
2976	135	41,54	3959	46	22	3	2
2977	70	41,47	3959	46	22	3	2
2978	65	27,43	2581	32	16	4	2
2979	74	22,43	2092	37	17	2	2
2980	129	22,43	2092	37	17	2	2
2981	145	22,43	2092	37	17	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
2982	163	25,92	2443	35	15	3	2
2983	132	25,92	2443	35	15	3	2
2984	125	26,87	2540	32	15	3	2
2985	130	27,08	2565	32	15	3	2
2986	109	27,08	2565	32	15	3	2
2987	125	27,71	2638	33	15	3	1
2988	137	29,49	2791	34	16	3	2
2989	133	29,49	2791	34	16	3	2
2990	143	29,99	2845	35	17	2	2
2991	127	30,67	2927	36	17	0	2
2992	118	33,39	3166	39	18	0	2
2993	93	33,39	3166	39	18	0	2
2994	84	34,72	3309	39	18	4	1
2995	110	35,07	3362	39	17	2	2
2996	122	35,07	3362	39	17	2	2
2997	101	35,83	3419	40	17	2	2
2998	126	37,08	3531	42	19	2	2
2999	96	38,00	3638	44	20	2	1
3000	105	38,00	3638	44	20	2	1
3001	66	38,47	3667	45	20	4	2
3002	92	38,81	3696	46	21	4	2
3003	107	31,99	3041	38	18	4	1
3004	106	31,99	3041	38	18	4	1
3005	121	26,68	2517	32	15	2	2
3006	109	26,68	2517	32	15	2	2
3007	100	22,84	2135	39	14	3	2
3008	120	22,84	2135	39	14	3	2
3009	120	22,84	2135	39	14	3	2
3010	111	25,44	2385	40	15	0	2
3011	101	25,44	2385	40	15	0	2
3012	118	26,61	2496	42	16	1	2
3013	122	27,78	2608	43	16	3	2
3014	136	27,78	2608	43	16	3	2
3015	129	28,88	2717	44	17	3	2
3016	111	28,88	2717	44	17	3	2
3017	96	29,07	2772	45	17	1	0
3018	95	28,67	2694	44	18	3	2
3019	71	31,10	2931	48	19	3	2
3020	82	35,30	3373	53	20	1	0
3021	100	24,52	2300	36	20	3	2
3022	107	24,52	2300	36	20	3	2
3023	54	23,37	2200	30	20	0	1
3024	92	23,73	2230	30	19	1	2
3025	111	23,88	2240	30	19	2	2
3026	49	23,48	2200	30	19	2	2
3027	44	23,98	2250	30	19	1	2
3028	75	24,32	2260	39	19	2	2
3029	89	22,57	2100	28	19	3	2
3030	59	22,69	2114	38	15	0	2
3031	53	25,90	2430	41	15	3	2
3032	73	26,62	2510	41	15	3	1
3033	137	26,62	2510	41	15	3	1
3034	94	26,62	2510	41	15	3	1
3035	92	25,68	2418	40	15	3	2
3036	95	24,44	2296	39	15	3	2
3037	98	26,94	2518	46	16	3	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3038	72	28,76	2698	48	17	3	1
3039	85	30,90	2895	52	19	4	2
3040	119	32,27	3026	54	20	4	2
3041	94	32,27	3026	54	20	4	2
3042	128	32,72	3057	54	19	4	2
3043	115	48,69	4620	65	29	5	2
3044	123	46,76	4434	63	28	5	2
3045	96	44,83	4249	60	27	5	2
3046	100	42,88	4064	58	26	4	2
3047	95	35,35	3355	48	21	3	1
3048	100	35,09	3331	47	21	3	1
3049	82	34,67	3285	46	20	4	2
3050	98	34,85	3290	46	20	3	2
3051	91	34,97	3293	46	20	3	2
3052	113	35,50	3343	46	20	4	2
3053	107	35,74	3368	46	20	5	2
3054	123	36,30	3435	46	20	4	2
3055	101	36,42	3451	46	20	4	3
3056	108	36,33	3447	46	20	4	3
3057	52	36,92	3507	48	21	3	2
3058	92	36,61	3474	47	21	3	2
3059	52	35,61	3368	45	21	3	2
3060	124	35,37	3344	45	21	3	2
3061	84	35,20	3344	45	21	2	1
3062	90	35,16	3364	46	21	1	0
3063	63	36,36	3439	48	21	3	1
3064	42	25,33	2380	40	16	2	2
3065	45	17,23	1600	28	11	2	1
3066	129	14,23	1310	24	10	2	1
3067	100	14,08	1300	20	8	2	2
3068	165	14,02	1300	19	8	2	2
3069	71	12,27	1124	23	9	2	2
3070	152	13,94	1283	26	10	2	2
3071	59	19,45	1784	37	15	3	2
3072	0	17,52	1618	26	13	3	1
3073	66	17,52	1618	26	13	3	1
3074	50	17,52	1618	26	13	3	1
3075	34	17,52	1618	26	13	3	1
3076	17	15,95	1467	26	12	2	2
3077	23	16,24	1500	24	12	2	2
3078	5	16,57	1550	23	12	0	2
3079	73	15,27	1420	23	12	0	2
3080	89	14,78	1358	28	12	2	1
3081	21	15,49	1424	29	12	3	1
3082	150	15,99	1474	29	12	3	1
3083	172	15,99	1474	29	12	3	1
3084	139	16,68	1542	32	13	2	1
3085	80	16,86	1564	32	13	2	1
3086	62	21,08	1956	37	15	2	2
3087	122	21,08	1956	37	15	2	2
3088	111	12,99	1203	19	10	1	2
3089	84	12,99	1203	19	10	1	2
3090	94	15,05	1415	22	11	2	1
3091	93	15,05	1415	22	11	2	1
3092	114	15,05	1415	22	11	2	1
3093	97	15,05	1415	22	11	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3094	107	22,19	2122	30	16	0	0
3095	103	25,01	2355	33	14	3	3
3096	88	26,67	2500	35	16	4	2
3097	93	26,67	2500	35	16	4	2
3098	104	28,91	2716	37	16	4	2
3099	91	28,91	2716	37	16	4	2
3100	106	30,89	2928	39	17	3	2
3101	113	30,89	2928	39	17	3	2
3102	109	33,95	3201	48	17	4	2
3103	89	33,95	3201	48	17	4	2
3104	81	35,92	3420	43	18	3	2
3105	84	37,20	3547	45	19	4	1
3106	89	37,20	3547	45	19	4	1
3107	101	38,07	3625	46	19	0	2
3108	116	38,07	3625	46	19	0	2
3109	98	37,20	3538	45	19	4	2
3110	91	36,55	3472	44	18	3	2
3111	71	34,97	3327	42	18	3	2
3112	114	34,97	3327	42	18	3	2
3113	114	34,97	3327	42	18	3	2
3114	98	34,97	3327	42	18	3	2
3115	98	34,97	3327	42	18	3	2
3116	97	34,22	3250	41	18	4	2
3117	107	33,79	3226	41	17	3	2
3118	95	33,79	3226	41	17	3	2
3119	100	31,93	3039	39	16	3	2
3120	89	30,94	2945	35	15	2	2
3121	114	24,97	2357	32	14	2	2
3122	80	24,28	2290	31	14	3	2
3123	98	24,15	2275	32	13	2	2
3124	78	24,15	2275	32	13	2	2
3125	75	24,32	2302	33	14	3	1
3126	77	24,32	2302	33	14	3	1
3127	75	24,14	2265	32	14	3	2
3128	79	23,69	2232	31	13	3	2
3129	117	22,16	2078	36	13	2	2
3130	96	22,78	2130	37	13	2	2
3131	81	23,74	2208	38	13	3	2
3132	97	23,14	2160	37	14	3	1
3133	61	22,84	2136	36	14	3	1
3134	69	19,93	1857	32	12	0	2
3135	53	19,93	1857	32	12	0	2
3136	90	19,32	1791	30	12	2	1
3137	89	18,94	1752	30	12	2	2
3138	111	18,94	1752	30	12	2	2
3139	109	18,69	1734	30	10	3	2
3140	99	18,69	1734	30	10	3	2
3141	50	19,23	1797	31	11	2	2
3142	46	19,40	1809	31	12	1	2
3143	55	21,18	1965	36	14	2	2
3144	59	21,61	2009	35	13	3	2
3145	76	20,26	1882	36	14	3	2
3146	93	17,08	1559	39	14	4	1
3147	102	19,77	1819	40	15	4	1
3148	106	27,67	2601	43	16	4	1
3149	87	28,55	2692	44	16	3	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3150	58	25,66	2416	38	15	2	1
3151	74	15,75	1460	24	10	3	1
3152	51	10,42	930	18	8	2	2
3153	93	10,67	946	20	8	2	2
3154	67	10,52	940	20	8	2	1
3155	98	10,04	910	18	6	2	1
3156	57	9,47	843	19	7	2	2
3157	90	9,25	836	16	7	1	2
3158	116	8,77	797	13	6	2	2
3159	118	7,93	721	12	5	2	2
3160	142	7,88	708	12	6	1	2
3161	104	22,63	2123	30	13	0	2
3162	76	32,49	3071	42	18	0	2
3163	33	39,15	3712	50	22	2	2
3164	90	47,21	4492	61	26	4	1
3165	102	49,59	4722	64	27	4	1
3166	58	59,28	5709	75	31	0	0
3167	67	59,26	5709	75	31	0	0
3168	144	4,28	357	9	5	1	2
3169	80	4,96	428	9	6	2	1
3170	86	5,58	477	10	5	2	1
3171	94	5,88	501	10	5	2	2
3172	141	6,02	519	10	5	2	2
3173	154	6,43	572	11	5	1	3
3174	124	6,43	572	11	5	1	3
3175	93	6,71	600	11	5	2	2
3176	97	7,38	677	12	6	2	1
3177	97	7,60	724	12	6	0	0
3178	134	7,60	724	12	6	0	0
3179	159	7,99	746	12	6	1	1
3180	131	8,77	790	12	5	3	2
3181	83	8,97	809	12	5	3	2
3182	76	9,67	874	13	6	2	2
3183	55	9,89	895	13	6	2	2
3184	89	9,91	894	14	6	2	2
3185	132	8,08	723	15	7	2	1
3186	163	8,08	723	15	7	2	1
3187	106	9,14	828	15	6	1	2
3188	80	9,50	863	14	6	1	2
3189	65	9,33	848	14	6	2	2
3190	105	9,30	848	14	6	2	2
3191	126	9,21	847	13	6	2	1
3192	101	9,21	847	13	6	2	1
3193	83	9,28	850	14	6	2	2
3194	118	9,40	860	14	6	2	2
3195	103	9,44	863	14	7	2	2
3196	116	9,45	855	14	6	2	1
3197	133	9,46	853	14	6	2	1
3198	123	9,48	856	14	6	2	1
3199	105	9,51	860	14	6	2	2
3200	84	9,54	860	14	6	2	2
3201	80	9,57	859	14	7	3	1
3202	125	9,50	868	13	7	2	2
3203	84	9,71	889	13	6	1	2
3204	11	10,44	947	15	6	2	2
3205	133	10,52	955	16	7	3	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3206	127	10,50	954	14	7	2	1
3207	40	10,38	941	14	7	2	2
3208	11	9,61	864	15	6	2	2
3209	13	8,55	766	15	6	2	2
3210	76	8,08	728	15	6	1	2
3211	67	8,14	736	14	5	1	1
3212	109	8,96	811	15	6	1	2
3213	62	9,23	836	15	6	2	2
3214	71	11,09	1010	19	7	2	2
3215	25	11,08	1019	18	6	1	1
3216	29	7,50	651	18	8	3	2
3217	29	10,58	979	18	7	1	1
3218	35	10,80	992	19	6	2	1
3219	21	10,48	963	18	7	2	1
3220	63	10,45	956	18	7	2	2
3221	84	10,52	959	18	7	1	2
3222	54	11,09	998	19	7	2	2
3223	44	11,38	1047	18	7	2	2
3224	50	11,35	1042	19	7	2	2
3225	60	10,13	923	19	7	2	1
3226	74	9,54	873	16	6	2	2
3227	89	9,85	906	15	6	2	2
3228	46	7,39	663	12	5	2	2
3229	22	5,56	485	9	5	1	2
3230	14	6,47	574	12	5	1	1
3231	85	6,57	580	11	6	2	1
3232	77	6,63	595	9	5	2	2
3233	106	6,75	603	10	5	2	2
3234	70	7,05	623	13	6	2	2
3235	35	7,90	706	12	6	2	2
3236	17	11,94	1101	21	8	2	2
3237	34	10,60	973	15	7	2	2
3238	49	9,40	839	18	7	3	2
3239	66	7,89	699	14	7	1	2
3240	24	6,70	591	11	5	2	2
3241	60	6,36	552	10	6	2	2
3242	17	5,61	489	11	4	2	2
3243	71	5,46	449	9	5	2	1
3244	51	4,93	424	10	5	2	1
3245	104	4,81	404	9	4	2	2
3246	67	3,46	279	8	4	2	2
3247	60	3,83	312	8	4	1	2
3248	62	5,80	504	12	5	2	1
3249	85	6,40	567	13	5	2	1
3250	61	7,75	686	15	6	3	2
3251	152	9,37	837	19	6	2	1
3252	123	9,37	842	18	6	2	1
3253	117	9,56	859	18	7	3	2
3254	18	11,48	1049	20	8	2	2
3255	98	9,74	877	20	7	2	1
3256	50	9,55	863	14	6	1	2
3257	96	9,36	848	14	6	2	2
3258	99	9,20	847	13	6	2	1
3259	51	9,20	847	13	6	2	1
3260	134	9,20	847	13	6	2	1
3261	29	9,31	851	14	6	1	3

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3262	68	9,41	863	14	6	2	2
3263	29	9,41	863	14	6	2	2
3264	114	9,44	853	14	6	2	1
3265	239	9,44	853	14	6	2	1
3266	157	9,55	860	14	6	2	2
3267	130	9,37	850	13	5	2	2
3268	31	5,80	500	11	4	2	2
3269	57	6,08	530	10	4	2	2
3270	72	6,46	568	13	6	1	2
3271	123	6,46	568	13	6	1	2
3272	118	8,97	806	18	7	4	1
3273	106	11,32	1027	20	7	2	2
3274	63	12,21	1115	22	8	2	2
3275	116	13,02	1203	23	9	2	1
3276	123	13,88	1283	24	9	2	1
3277	112	14,72	1363	24	9	1	1
3278	105	10,25	909	28	9	3	1
3279	59	11,72	1041	28	10	2	2
3280	80	18,88	1762	30	11	2	2
3281	94	19,57	1824	30	11	2	2
3282	120	20,09	1867	30	11	2	2
3283	77	20,15	1877	30	11	2	1
3284	56	18,80	1740	30	11	2	1
3285	61	17,24	1586	31	12	2	2
3286	62	16,97	1562	30	12	3	2
3287	99	16,77	1551	30	12	2	2
3288	99	16,69	1547	31	12	0	2
3289	9	15,18	1387	25	10	2	3
3290	30	12,85	1166	26	11	2	2
3291	26	13,86	1267	26	11	2	2
3292	93	20,35	1901	29	12	3	2
3293	40	22,61	2126	30	13	1	2
3294	48	20,09	1886	27	12	1	2
3295	60	19,75	1845	27	13	3	3
3296	104	29,44	2765	38	16	0	2
3297	134	31,19	2938	40	17	1	2
3298	102	37,37	3555	46	20	2	2
3299	72	40,27	3841	48	20	2	2
3300	61	34,43	3251	55	21	4	1
3301	51	34,98	3301	56	22	4	1
3302	75	43,72	4177	53	22	5	1
3303	62	43,72	4177	53	22	5	1
3304	59	41,93	3992	53	22	3	2
3305	92	41,38	3933	53	22	1	2
3306	99	41,09	3904	53	22	0	2
3307	56	39,30	3732	51	21	2	2
3308	41	33,33	3151	46	19	4	2
3309	42	31,81	3016	45	19	3	2
3310	38	31,29	2945	43	19	3	2
3311	45	27,27	2544	41	17	3	2
3312	50	20,44	1894	39	14	3	2
3313	58	15,23	1393	30	11	2	1
3314	61	14,68	1332	29	11	2	1
3315	131	14,21	1286	28	11	1	2
3316	101	13,60	1245	26	11	0	2
3317	32	14,64	1350	26	11	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3318	45	14,85	1377	25	11	2	1
3319	112	14,81	1375	24	11	2	1
3320	111	14,96	1386	24	11	2	1
3321	105	15,39	1420	24	11	3	2
3322	41	15,39	1420	24	11	3	2
3323	6	16,62	1543	27	12	2	1
3324	144	16,96	1592	28	12	1	1
3325	128	17,24	1641	28	12	0	0
3326	70	17,24	1641	28	12	0	0
3327	79	17,49	1618	28	11	2	2
3328	148	13,24	1212	28	9	2	2
3329	174	13,71	1262	28	8	2	2
3330	130	13,79	1263	28	9	2	2
3331	56	19,49	1811	31	15	1	1
3332	115	16,23	1501	30	13	1	1
3333	129	13,32	1219	30	11	2	1
3334	109	14,64	1350	26	11	2	2
3335	77	14,85	1377	25	11	2	1
3336	139	14,81	1375	24	11	2	1
3337	156	14,96	1386	24	11	2	1
3338	162	15,39	1420	24	11	3	2
3339	164	15,39	1420	24	11	3	2
3340	123	16,62	1543	27	12	2	1
3341	89	16,96	1592	28	12	1	1
3342	100	17,24	1641	28	12	0	0
3343	146	17,24	1641	28	12	0	0
3344	162	17,49	1618	28	11	2	2
3345	147	17,49	1618	28	11	2	2
3346	120	17,61	1638	28	11	2	2
3347	41	17,87	1666	28	11	2	1
3348	49	16,83	1559	27	11	1	2
3349	69	16,34	1528	26	11	2	1
3350	139	19,05	1778	30	13	2	2
3351	120	19,69	1840	31	13	2	2
3352	167	18,76	1752	28	12	1	2
3353	59	18,23	1723	27	12	0	2
3354	44	12,86	1160	25	10	1	2
3355	103	13,65	1237	27	11	2	2
3356	71	16,80	1546	32	13	2	2
3357	168	17,59	1624	33	13	2	2
3358	126	21,89	2019	41	16	3	2
3359	1	26,71	2481	47	20	3	1
3360	127	28,82	2744	45	21	0	0
3361	157	30,22	2865	46	21	2	1
3362	125	33,95	3201	51	22	4	2
3363	58	39,81	3763	58	26	4	1
3364	53	41,88	3958	61	27	4	1
3365	101	44,14	4169	63	28	5	2
3366	177	45,13	4263	64	28	3	2
3367	153	47,36	4481	67	28	1	1
3368	63	50,13	4776	70	30	3	1
3369	70	51,20	4907	72	31	0	0
3370	113	50,46	4782	82	31	3	1
3371	116	51,37	4839	89	32	5	2
3372	135	54,16	5120	89	32	6	2
3373	105	58,11	5504	94	33	5	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3374	67	64,92	6156	104	36	6	2
3375	57	61,73	5867	98	33	1	2
3376	94	54,19	5140	84	30	3	2
3377	107	50,42	4776	78	28	5	1
3378	109	50,42	4776	78	28	5	1
3379	102	34,56	3256	56	20	5	2
3380	112	29,01	2699	49	19	4	2
3381	114	29,01	2699	49	19	4	2
3382	92	33,35	3118	56	20	4	2
3383	83	35,53	3327	60	21	4	2
3384	131	38,35	3596	64	23	4	2
3385	134	41,16	3866	69	25	4	2
3386	125	43,64	4102	73	26	5	2
3387	103	43,64	4102	73	26	5	2
3388	127	43,64	4102	73	26	5	2
3389	144	43,64	4102	73	26	5	2
3390	164	43,64	4102	73	26	5	2
3391	148	44,34	4181	76	28	4	1
3392	151	44,34	4181	76	28	4	1
3393	75	31,32	2854	76	28	5	2
3394	87	31,32	2854	76	28	5	2
3395	135	47,87	4507	82	31	5	2
3396	140	48,75	4587	84	31	5	2
3397	142	50,40	4747	87	32	4	2
3398	107	51,23	4826	88	33	4	2
3399	77	53,34	5030	91	34	5	1
3400	87	56,54	5349	96	34	5	2
3401	146	56,54	5349	96	34	5	2
3402	148	56,54	5349	96	34	5	2
3403	130	56,54	5349	96	34	5	2
3404	76	58,71	5545	100	36	5	2
3405	70	60,91	5751	104	37	6	2
3406	135	60,91	5751	104	37	6	2
3407	93	60,91	5751	104	37	6	2
3408	141	63,11	5942	106	38	5	3
3409	123	63,57	6008	106	38	6	2
3410	126	63,57	6008	106	38	6	2
3411	102	63,57	6008	106	38	6	2
3412	90	53,50	5094	74	32	4	2
3413	80	50,69	4815	70	31	5	1
3414	103	50,69	4815	70	31	5	1
3415	134	49,57	4690	70	31	5	2
3416	122	49,57	4690	70	31	5	2
3417	100	48,99	4647	69	31	5	1
3418	76	46,94	4446	67	29	5	2
3419	123	45,65	4330	66	28	4	2
3420	130	45,65	4330	66	28	4	2
3421	163	45,55	4306	65	29	5	2
3422	123	45,22	4269	63	29	6	1
3423	67	44,91	4279	63	29	2	0
3424	59	46,89	4441	68	30	5	2
3425	71	47,49	4497	68	30	5	2
3426	124	49,32	4664	70	32	6	1
3427	107	49,95	4720	71	32	6	2
3428	91	51,11	4833	73	32	5	3
3429	61	47,86	4496	84	32	5	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3430	77	50,88	4795	86	33	5	1
3431	64	56,12	5319	80	34	5	1
3432	61	57,76	5473	82	35	6	1
3433	84	58,21	5517	83	36	5	1
3434	119	58,42	5540	84	36	5	1
3435	144	59,28	5626	85	37	5	1
3436	96	60,07	5712	86	37	5	1
3437	65	60,14	5744	88	37	2	0
3438	49	54,85	5208	79	35	5	2
3439	76	46,40	4395	67	30	5	1
3440	50	53,50	5094	74	32	4	2
3441	41	50,69	4815	70	31	5	1
3442	141	50,69	4815	70	31	5	1
3443	143	49,57	4690	70	31	5	2
3444	85	49,57	4690	70	31	5	2
3445	117	48,99	4647	69	31	5	1
3446	78	46,94	4446	67	29	5	2
3447	94	45,65	4330	66	28	4	2
3448	137	45,65	4330	66	28	4	2
3449	120	45,55	4306	65	29	5	2
3450	149	45,22	4269	63	29	6	1
3451	128	44,91	4279	63	29	2	0
3452	115	46,89	4441	68	30	5	2
3453	109	75,59	7088	146	55	8	2
3454	100	49,57	4690	70	31	5	2
3455	145	49,57	4690	70	31	5	2
3456	112	48,99	4647	69	31	5	1
3457	132	46,94	4446	67	29	5	2
3458	170	45,65	4330	66	28	4	2
3459	148	45,65	4330	66	28	4	2
3460	110	45,55	4306	65	29	5	2
3461	75	45,22	4269	63	29	6	1
3462	91	44,89	4279	62	29	2	0
3463	147	46,89	4441	68	30	5	2
3464	127	45,22	4269	63	29	6	1
3465	116	44,91	4279	63	29	2	0
3466	128	46,89	4441	68	30	5	2
3467	90	46,93	4442	69	32	4	2
3468	142	49,57	4690	70	31	5	2
3469	139	49,57	4690	70	31	5	2
RIO BRAVO Fm.							
3470	162	48,99	4647	69	31	5	1
3471	139	46,94	4446	67	29	5	2
3472	105	50,40	4776	78	28	5	1
3473	124	50,38	4775	79	27	5	1
3474	120	34,55	3256	56	20	5	2
3475	145	29,01	2699	49	19	4	2
3476	165	29,01	2700	50	18	4	2
3477	133	33,35	3118	56	20	4	2
3478	118	35,53	3327	60	21	4	2
3479	94	42,71	4040	64	28	5	1
3480	80	46,37	4383	69	30	5	2
3481	120	45,61	4289	75	31	5	2
3482	119	40,46	3758	84	31	4	2
3483	161	40,43	3758	84	31	4	2
3484	79	47,85	4531	72	31	4	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3485	108	47,74	4515	72	30	4	2
3486	112	47,48	4481	72	30	5	1
3487	141	47,48	4481	72	30	5	1
3488	130	47,22	4461	71	30	5	1
3489	166	47,12	4451	71	30	6	1
3490	82	48,45	4583	74	31	4	2
3491	104	48,45	4583	74	31	4	2
3492	145	50,80	4802	77	34	5	2
3493	128	48,92	4641	68	31	5	2
3494	27	45,65	4330	66	28	4	2
3495	64	45,55	4306	65	29	5	2
3496	82	45,22	4269	63	29	6	1
3497	159	44,91	4279	63	29	2	0
3498	138	41,38	3933	53	22	1	2
3499	107	41,09	3904	53	22	0	2
3500	56	39,30	3732	51	21	2	2
3501	65	33,33	3151	46	19	4	2
3502	62	31,81	3016	45	19	3	2
3503	119	31,29	2945	43	19	3	2
3504	111	27,27	2544	41	17	3	2
3505	29	20,44	1894	39	14	3	2
3506	68	15,23	1393	30	11	2	1
3507	90	14,68	1332	29	11	2	1
3508	101	14,21	1286	28	11	1	2
3509	98	13,60	1245	26	11	0	2
3510	69	14,64	1350	26	11	2	2
3511	87	14,85	1377	25	11	2	1
3512	90	14,81	1375	24	11	2	1
3513	65	14,96	1386	24	11	2	1
3514	66	15,39	1420	24	11	3	2
3515	76	15,39	1420	24	11	3	2
3516	118	16,62	1543	27	12	2	1
3517	128	16,96	1592	28	12	1	1
3518	114	17,24	1641	28	12	0	0
3519	96	17,24	1641	28	12	0	0
3520	49	17,49	1618	28	11	2	2
3521	97	13,24	1212	28	9	2	2
3522	135	13,71	1262	28	8	2	2
3523	126	13,79	1263	28	9	2	2
3524	61	19,49	1811	31	15	1	1
3525	163	16,23	1501	30	13	1	1
3526	157	13,32	1219	30	11	2	1
3527	103	14,64	1350	26	11	2	2
3528	58	14,85	1377	25	11	2	1
3529	55	14,92	1375	24	12	2	2
3530	102	4,16	782	14	7	2	2
3531	158	4,64	391	9	4	2	2
3532	190	4,65	398	11	4	1	2
3533	123	4,65	398	11	4	1	2
3534	55	4,65	398	11	4	1	2
3535	34	3,62	295	6	3	1	2
3536	83	1,78	125	3	2	1	2
3537	113	1,50	101	4	2	2	1
3538	146	1,50	101	4	2	2	1
3539	122	1,30	70	3	1	2	2
3540	99	1,19	63	2	1	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3541	61	2,03	145	5	3	2	2
3542	124	2,57	192	7	3	2	2
3543	143	2,57	192	7	3	2	2
3544	145	3,06	242	7	3	2	2
3545	58	3,31	268	7	3	2	2
3546	100	3,41	284	7	3	1	2
3547	76	19,69	1840	31	13	2	2
3548	36	18,76	1752	28	12	1	2
3549	68	18,42	1723	27	12	0	2
3550	58	18,23	1708	27	12	0	2
3551	50	13,69	1237	26	11	2	2
3552	42	16,81	1546	32	13	2	2
3553	33	16,44	1540	20	11	2	2
3554	13	13,57	1251	23	10	1	2
3555	84	15,84	1476	23	12	0	2
3556	60	16,93	1573	25	14	0	2
3557	59	17,43	1621	26	14	0	2
3558	162	19,64	1823	29	16	4	1
3559	208	19,64	1823	29	16	4	1
3560	142	20,33	1891	30	16	4	1
3561	96	22,35	2097	32	18	4	1
3562	165	23,54	2209	33	18	3	1
3563	152	24,12	2251	34	18	3	1
3564	175	24,12	2264	34	18	3	1
3565	148	22,61	2112	30	17	3	2
3566	84	21,85	2036	29	16	3	2
3567	107	23,33	2196	29	16	3	1
3568	148	23,33	2196	29	16	3	1
3569	161	23,25	2185	29	16	3	2
3570	117	23,10	2165	28	15	3	2
3571	134	23,10	2165	28	15	3	2
3572	107	20,89	1953	25	13	3	2
3573	94	17,00	1591	22	11	1	1
3574	165	16,07	1506	21	11	0	1
3575	141	16,07	1506	21	11	0	1
3576	128	14,46	1333	19	11	1	1
3577	79	12,89	1174	18	10	2	2
3578	134	12,12	1100	18	8	3	2
3579	175	12,12	1100	18	8	3	2
3580	149	12,09	1100	18	9	3	2
3581	76	11,78	1076	19	10	2	2
3582	26	10,89	975	22	10	1	2
3583	135	9,74	881	21	9	2	2
3584	144	9,46	859	20	11	1	1
3585	115	8,90	815	18	16	0	0
3586	65	8,17	738	17	13	1	0
3587	106	6,70	584	15	8	2	1
3588	115	6,70	584	15	8	2	1
3589	151	6,65	578	15	8	2	1
3590	107	6,53	565	13	8	2	2
3591	110	6,61	577	13	8	1	2
3592	52	6,75	582	13	8	2	3
3593	18	7,08	614	15	8	2	2
3594	60	7,60	665	16	8	1	1
3595	136	7,74	676	16	9	2	2
3596	136	8,15	710	19	10	2	3

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3597	97	8,15	710	19	10	2	3
3598	52	9,82	859	24	14	3	1
3599	57	11,84	1006	33	21	3	2
3600	136	10,10	806	39	23	3	2
3601	139	10,10	806	39	23	3	2
3602	140	11,37	932	40	25	3	2
3603	59	15,67	1350	45	32	5	2
3604	69	17,02	1450	52	37	7	2
3605	48	16,93	1436	53	38	6	2
3606	44	16,25	1380	52	37	5	2
3607	94	15,76	1340	50	36	5	1
3608	93	15,07	1276	49	34	6	2
3609	117	14,34	1212	46	32	5	2
3610	81	13,92	1181	44	32	4	2
3611	56	13,70	1157	44	32	1	3
3612	42	12,97	1097	37	30	6	2
3613	86	12,00	1061	38	26	0	0
3614	106	11,91	1031	36	26	2	1
3615	147	11,82	1002	35	25	4	2
3616	94	11,08	940	33	23	4	2
3617	70	10,33	879	30	20	3	2
3618	56	9,28	823	28	21	0	0
3619	69	9,84	861	29	21	1	1
3620	126	10,71	907	31	22	3	2
3621	114	10,20	848	32	21	3	2
3622	111	9,49	788	31	20	4	2
3623	129	9,73	824	27	19	3	2
3624	97	10,46	902	25	19	3	2
3625	100	10,94	950	25	21	3	2
3626	85	10,90	937	25	20	3	2
3627	70	3,90	320	8	7	0	1
3628	159	2,93	226	7	6	1	2
3629	123	2,76	207	7	5	1	2
3630	107	2,26	151	5	3	2	1
3631	145	1,82	116	4	3	2	2
3632	126	1,16	63	3	3	2	2
3633	136	1,16	63	3	3	2	2
3634	114	1,81	117	4	5	2	1
3635	69	1,81	117	4	5	2	1
3636	97	2,09	148	6	5	1	1
3637	120	2,23	164	6	4	0	2
3638	152	2,20	151	5	4	1	2
3639	128	2,19	148	4	4	2	2
3640	118	2,19	148	4	4	2	2
3641	123	2,22	156	5	4	2	3
3642	80	3,33	250	9	7	2	3
3643	143	5,04	389	14	9	2	2
3644	138	5,16	386	13	8	2	2
3645	166	5,16	357	11	7	2	2
3646	70	4,57	369	12	9	2	2
3647	69	4,86	399	13	9	2	2
3648	59	5,91	509	15	8	2	1
3649	53	6,50	545	18	11	2	1
3650	25	6,75	562	17	10	2	2
3651	65	6,38	543	14	10	2	2
3652	35	6,82	571	16	11	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3653	50	6,54	558	15	11	2	2
3654	35	6,44	542	16	11	2	2
3655	50	6,33	532	16	11	2	2
3656	181	6,40	545	16	11	2	2
3657	137	6,47	557	16	11	3	2
3658	91	7,41	640	16	11	2	2
3659	93	8,04	695	17	12	2	3
3660	138	8,17	718	18	12	2	2
3661	133	8,22	726	19	12	2	1
3662	111	8,47	748	18	13	2	2
3663	80	9,31	819	18	12	3	2
3664	90	10,05	898	18	13	1	2
3665	146	10,05	898	18	13	1	2
3666	167	10,44	934	19	13	2	2
3667	184	11,21	1004	20	12	2	2
3668	119	11,21	1004	20	12	2	2
3669	32	11,88	1080	20	13	2	1
3670	74	12,15	1109	22	13	3	1
3671	108	12,13	1104	23	12	3	1
3672	153	12,13	1104	23	12	3	1
3673	114	11,59	1045	23	12	3	1
3674	50	11,38	1020	24	12	3	2
3675	50	11,24	1010	23	11	2	2
3676	89	11,24	1010	23	11	2	2
3677	148	9,46	863	20	11	1	1
3678	84	8,51	790	19	10	0	0
3679	94	6,15	534	13	8	2	2
3680	61	6,15	534	15	9	2	1
3681	90	6,36	514	21	11	2	1
3682	70	6,91	586	15	10	1	2
3683	62	6,38	543	14	10	2	2
3684	79	6,80	571	16	11	2	1
3685	120	6,53	558	15	11	2	2
3686	104	6,29	532	16	10	2	1
3687	124	6,29	532	16	10	2	1
3688	111	6,47	557	15	11	2	2
3689	65	6,47	557	15	11	2	2
3690	93	8,08	695	17	12	2	3
3691	136	8,08	695	17	12	2	3
3692	134	8,21	718	18	12	2	2
3693	94	8,22	726	19	12	2	1
3694	114	8,63	759	18	14	2	2
3695	81	9,33	819	18	12	3	2
3696	115	10,04	898	18	13	1	2
3697	104	10,04	898	18	13	1	2
3698	105	6,44	550	14	8	1	2
3699	106	6,24	523	14	8	2	2
3700	75	7,20	610	17	9	2	2
3701	71	7,20	610	17	9	2	2
3702	177	7,20	610	17	9	2	2
3703	156	11,30	1004	29	15	2	2
3704	51	11,70	1025	30	15	2	2
3705	44	12,22	1035	29	15	2	2
3706	55	12,60	1067	30	15	2	2
3707	131	12,69	1120	31	16	2	2
3708	171	13,08	1159	33	16	0	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3709	128	13,08	1159	33	16	0	2
3710	94	14,03	1262	31	16	2	2
3711	61	14,61	1312	33	17	4	1
3712	54	15,05	1350	35	17	3	2
3713	82	15,05	1350	35	17	3	2
3714	113	15,76	1415	36	19	3	2
3715	84	16,13	1439	36	19	4	2
3716	64	16,13	1439	36	19	4	2
3717	34	15,06	1366	30	18	3	1
3718	32	14,91	1359	29	17	2	2
3719	113	15,33	1391	29	18	3	2
3720	131	15,33	1391	29	18	3	2
3721	147	15,37	1395	29	18	3	2
3722	140	15,28	1391	29	19	2	2
3723	15	14,40	1327	29	18	0	1
3724	35	13,64	1227	27	17	0	3
3725	77	13,30	1197	24	16	1	2
3726	192	13,29	1190	23	16	2	2
3727	155	13,17	1191	23	16	2	1
3728	136	12,87	1197	26	16	0	0
3729	40	14,55	1321	28	17	0	2
3730	97	13,76	1251	25	16	2	2
3731	48	12,50	1121	22	16	3	2
3732	102	12,50	1104	24	16	2	2
3733	166	12,50	1104	24	16	2	2
3734	175	13,86	1244	26	17	3	1
3735	62	13,60	1226	26	17	3	2
3736	47	10,60	944	20	13	3	2
3737	56	10,58	950	17	12	3	2
3738	118	10,56	945	18	11	3	2
3739	136	10,47	945	17	11	2	1
3740	101	10,54	955	14	12	2	2
3741	26	10,71	960	15	11	2	3
3742	79	10,62	965	15	12	2	2
3743	90	10,30	925	15	12	2	2
3744	77	10,74	965	15	12	2	2
3745	58	10,71	965	16	12	3	1
3746	56	10,50	945	17	11	3	1
3747	74	10,84	975	18	12	3	1
3748	79	11,29	975	28	17	3	2
3749	77	12,47	1080	30	19	4	2
3750	63	13,27	1155	32	21	3	2
3751	82	13,81	1205	33	22	3	2
3752	55	14,83	1300	35	23	3	2
3753	27	17,01	1510	39	27	4	2
3754	89	17,29	1532	40	27	5	3
3755	74	16,54	1461	39	26	4	2
3756	44	14,82	1306	35	22	4	2
3757	20	14,71	1308	33	20	3	3
3758	64	14,24	1290	31	18	2	1
3759	75	15,09	1357	31	18	4	1
3760	61	16,13	1471	31	18	3	2
3761	32	17,19	1567	26	19	4	2
3762	32	16,02	1456	25	17	1	2
3763	69	11,48	1031	15	13	2	2
3764	50	6,19	509	16	11	2	3

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3765	55	6,71	555	15	11	2	2
3766	46	6,60	550	14	11	2	2
3767	58	6,67	558	16	11	2	2
3768	58	7,57	660	15	12	2	2
3769	34	7,71	666	16	11	0	2
3770	64	7,04	600	16	12	0	2
3771	52	7,60	655	15	12	1	2
3772	73	7,69	655	15	12	1	2
3773	57	7,19	600	17	12	1	2
3774	68	7,15	596	17	12	1	2
3775	71	7,13	598	18	12	2	2
3776	53	6,85	589	19	11	2	2
3777	68	7,00	589	18	11	2	2
3778	55	7,03	589	18	12	2	2
3779	63	7,06	600	18	12	1	2
3780	86	7,06	601	17	12	2	2
3781	41	7,01	602	17	10	2	2
3782	58	6,44	555	16	10	1	2
3783	81	5,90	505	15	9	1	2
3784	62	5,87	504	11	7	2	1
3785	103	5,73	485	16	8	2	1
3786	69	5,07	419	16	8	2	1
3787	66	5,78	489	15	9	2	1
3788	79	6,29	532	17	9	2	2
3789	94	6,14	515	16	9	1	1
3790	49	6,14	515	16	9	1	1
3791	50	5,66	495	12	4	1	2
3792	85	5,82	498	12	3	2	2
3793	88	5,69	498	12	3	1	2
3794	27	5,53	475	12	4	1	2
3795	61	5,69	498	12	3	1	1
3796	57	5,57	485	11	2	1	2
3797	94	5,50	485	11	3	2	2
3798	93	5,21	475	11	2	0	1
3799	76	5,32	455	11	4	1	2
3800	58	5,20	455	11	3	1	1
3801	43	5,42	458	11	2	2	2
3802	90	5,44	476	11	4	2	1
3803	56	5,40	475	11	3	2	2
3804	76	5,01	425	11	4	2	1
3805	58	5,11	428	11	5	2	2
3806	84	4,72	403	12	5	1	2
3807	44	4,72	403	12	5	1	2
3808	36	4,87	406	12	5	1	1
3809	50	4,94	408	12	5	1	1
3810	23	4,92	408	11	5	1	2
3811	91	4,77	400	9	4	1	2
3812	29	4,75	398	9	4	1	2
3813	79	4,52	390	9	3	1	1
3814	43	4,66	395	9	3	1	2
3815	67	4,64	394	9	3	2	1
3816	56	4,70	400	9	3	2	1
3817	66	4,71	401	9	3	2	1
3818	79	4,76	402	9	3	2	2
3819	93	4,69	400	8	3	1	1
3820	86	4,71	402	8	3	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3821	89	4,65	402	8	3	2	1
3822	83	4,78	405	6	3	1	2
3823	73	4,83	410	6	3	1	2
3824	93	4,70	410	8	3	1	1
3825	99	4,95	420	7	3	2	1
3826	68	4,67	400	8	4	1	1
3827	69	5,16	428	15	6	2	1
3828	52	7,18	636	17	7	2	1
3829	77	7,93	697	17	7	2	1
3830	63	9,85	875	24	9	2	0
3831	47	9,85	875	24	9	2	1
3832	64	8,59	763	20	8	2	1
3833	54	7,72	687	16	8	2	1
3834	35	8,42	741	16	8	2	1
3835	16	8,19	724	16	7	1	0
3836	75	8,19	724	16	7	2	1
3837	52	7,87	686	17	8	2	1
3838	52	7,53	657	17	7	1	1
3839	35	7,53	657	17	7	2	1
3840	80	7,52	641	17	8	2	0
3841	103	7,52	641	17	8	2	1
3842	64	6,95	618	13	6	2	2
3843	15	6,98	606	12	6	1	0
3844	77	6,98	606	12	6	2	0
3845	105	6,72	593	12	6	2	2
3846	84	6,53	603	12	6	2	1
3847	39	6,46	608	12	6	2	0
3848	22	7,97	709	13	7	2	1
3849	73	7,85	696	16	7	1	1
3850	54	7,72	677	17	8	1	0
3851	65	8,01	715	13	6	2	1
3852	47	7,71	687	15	6	2	1
3853	35	7,10	626	15	7	2	1
3854	42	6,93	605	15	7	2	0
3855	58	6,93	605	15	7	2	1
3856	58	6,93	605	15	7	2	1
3857	45	6,86	598	15	7	2	1
3858	54	6,74	584	16	6	1	1
3859	37	6,81	594	14	7	2	0
3860	28	6,52	567	13	7	2	1
3861	36	6,52	567	13	7	2	1
3862	38	6,18	522	17	6	2	1
3863	76	6,18	522	17	6	2	1
3864	59	6,95	608	16	6	1	1
3865	53	7,30	651	16	6	2	1
3866	51	7,86	706	17	6	2	1
3867	52	8,91	784	21	9	2	2
3868	95	8,91	784	21	9	1	2
3869	46	9,35	826	22	7	2	0
3870	70	9,40	837	22	8	2	0
3871	30	6,89	601	16	5	2	1
3872	65	4,78	397	11	4	1	2
3873	93	3,23	265	7	3	2	1
3874	71	2,60	203	5	2	2	1
3875	78	4,84	409	14	4	2	1
3876	33	8,71	769	22	6	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3877	50	11,06	989	25	8	1	2
3878	80	12,21	1099	26	9	1	2
3879	82	14,59	1323	33	11	2	1
3880	82	14,59	1323	33	11	2	1
3881	56	16,43	1487	32	12	3	2
3882	80	17,85	1643	34	13	2	1
3883	46	18,07	1659	35	13	2	1
3884	87	18,45	1715	37	13	3	1
3885	100	18,90	1738	37	13	1	2
3886	58	19,00	1744	37	13	2	2
3887	63	16,16	1509	28	9	2	2
3888	49	8,08	757	8	5	2	1
3889	82	8,19	781	7	2	1	1
3890	130	9,25	828	21	5	2	1
3891	115	7,70	673	19	5	2	2
3892	36	6,98	612	17	5	1	2
3893	24	5,97	520	13	6	2	1
3894	52	5,97	520	13	6	2	1
3895	80	8,06	710	18	5	2	2
3896	114	9,47	840	21	7	2	2
3897	79	10,38	927	23	7	2	2
3898	50	12,95	1166	29	10	0	1
3899	34	16,30	1504	37	10	3	1
3900	84	16,30	1504	37	10	3	1
3901	96	16,80	1555	39	11	2	2
3902	76	16,60	1527	34	11	3	2
3903	25	16,57	1524	34	10	3	2
3904	42	16,49	1520	35	9	2	2
3905	81	16,50	1515	36	9	2	2
3906	100	16,60	1516	39	10	2	2
3907	62	17,10	1577	40	10	2	2
3908	57	17,78	1631	41	10	2	3
3909	23	18,46	1702	42	10	2	2
3910	29	11,77	1061	30	8	2	2
3911	70	10,37	936	26	6	2	2
3912	59	8,13	723	22	8	0	1
3913	42	10,58	950	17	12	3	2
3914	38	10,56	945	18	11	3	2
3915	37	10,47	945	17	11	2	1
3916	54	10,54	955	14	12	2	2
3917	67	6,70	591	15	4	2	1
3918	90	8,36	742	18	6	2	2
3919	49	9,88	881	22	6	1	2
3920	76	11,26	1027	28	6	1	2
3921	98	11,99	1095	23	6	2	2
3922	83	11,99	1095	23	6	2	2
3923	43	13,19	1206	26	6	2	2
3924	44	15,39	1432	30	7	2	2
3925	26	16,55	1529	31	9	3	2
3926	68	16,90	1564	35	8	1	2
3927	80	17,22	1590	36	8	2	2
3928	25	17,22	1590	36	8	2	2
3929	15	11,41	1019	30	8	2	1
3930	31	12,00	1098	29	6	0	2
3931	88	12,00	1098	29	6	0	2
3932	13	12,71	1158	29	7	3	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3933	24	13,14	1195	31	8	2	2
3934	24	12,99	1188	31	8	2	2
3935	83	13,33	1210	31	8	2	2
3936	103	13,61	1225	31	8	2	2
3937	58	14,33	1305	32	7	2	2
3938	23	14,88	1363	35	9	2	2
3939	72	14,88	1363	35	9	2	2
3940	81	7,97	717	18	4	1	1
3941	18	1,37	128	5	0	0	0
3942	66	5,97	517	14	5	2	2
3943	48	8,56	746	22	7	2	2
3944	47	10,16	913	24	8	2	2
3945	100	11,80	1063	25	8	1	1
3946	35	13,39	1211	32	9	3	3
3947	38	14,59	1329	36	9	2	2
3948	47	15,23	1414	29	9	1	1
3949	89	16,27	1495	39	10	2	1
3950	104	16,37	1516	33	10	1	1
3951	43	16,37	1506	35	10	2	2
3952	39	16,26	1498	34	10	2	2
3953	82	15,08	1394	28	9	3	2
3954	79	12,08	1104	24	8	1	1
3955	23	11,59	1065	23	7	0	1
3956	52	7,75	677	20	6	2	2
3957	18	6,11	530	17	5	2	2
3958	78	5,52	471	14	4	2	2
3959	24	5,47	462	14	5	2	1
3960	44	4,80	406	12	4	2	2
3961	2	4,15	367	10	4	2	2
3962	75	3,81	307	8	3	2	2
3963	97	3,65	296	9	4	2	2
3964	59	3,43	280	8	4	2	2
3965	45	3,12	251	7	3	1	2
3966	24	3,25	262	6	3	1	2
3967	82	3,55	287	7	3	1	2
3968	103	4,35	375	9	4	1	2
3969	58	4,77	413	10	4	2	1
3970	47	6,47	566	12	4	2	2
3971	43	7,40	635	18	6	1	2
3972	86	7,53	653	21	7	2	1
3973	65	8,01	708	21	8	2	1
3974	82	8,37	737	22	8	1	2
3975	35	9,33	807	23	9	2	1
3976	16	11,16	1022	26	8	1	1
3977	110	12,01	1096	26	9	2	2
3978	113	12,13	1104	25	9	2	1
3979	128	12,35	1124	26	9	1	2
3980	54	12,51	1141	26	9	0	2
3981	21	12,75	1161	26	9	1	2
3982	54	12,78	1157	28	10	2	2
3983	100	16,67	1531	29	10	3	2
3984	123	17,14	1573	30	10	3	2
3985	120	17,61	1615	30	11	4	2
3986	98	17,75	1634	31	11	3	2
3987	20	18,13	1693	34	11	1	2
3988	34	20,99	1958	39	11	0	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
3989	104	21,35	1992	40	12	2	2
3990	116	20,66	1917	37	12	3	2
3991	120	20,20	1875	36	12	2	2
3992	89	18,80	1751	34	11	0	1
3993	91	15,61	1450	28	10	1	1
3994	57	9,46	847	18	6	2	1
3995	65	8,94	801	17	6	2	1
3996	88	7,38	664	14	4	2	2
3997	94	7,34	660	15	4	2	2
3998	87	7,29	657	15	5	2	2
3999	116	7,66	688	16	5	2	2
4000	133	9,12	813	20	7	2	2
4001	73	11,02	991	23	8	2	2
4002	85	12,05	1089	25	8	2	2
4003	77	12,43	1128	25	8	2	1
4004	118	13,59	1244	27	8	2	1
4005	107	14,02	1286	26	9	2	2
4006	133	14,88	1371	26	10	2	3
4007	87	15,30	1411	27	10	2	2
4008	67	15,51	1432	27	9	2	2
4009	93	17,12	1584	31	12	2	2
4010	105	17,49	1622	31	12	2	1
4011	89	18,60	1736	33	12	2	1
4012	77	19,43	1799	34	13	2	2
4013	60	19,84	1831	34	13	2	2
4014	17	21,16	1967	37	14	1	2
4015	9	23,55	2195	42	16	2	2
4016	87	23,06	2140	44	17	2	1
4017	108	12,59	1130	28	11	1	2
4018	57	13,42	1209	33	11	1	2
4019	85	14,58	1329	34	12	1	2
4020	49	16,26	1478	37	14	2	2
4021	52	18,60	1696	43	15	2	2
4022	39	12,11	1089	29	11	2	2
4023	33	8,99	796	21	10	1	2
4024	28	12,02	1084	26	10	2	2
4025	66	12,77	1161	25	10	2	3
4026	30	13,32	1217	25	10	1	2
4027	49	13,11	1198	25	10	1	2
4028	39	12,69	1158	25	10	1	2
4029	20	10,03	901	21	9	1	2
4030	4	6,45	552	14	7	1	2
4031	5	4,85	406	12	6	2	1
4032	32	4,29	357	13	5	1	2
4033	41	4,36	380	12	6	0	1
4034	4	4,84	409	14	5	1	2
4035	3	4,25	351	12	6	1	1
4036	17	3,70	302	8	4	0	2
4037	15	1,88	139	4	2	1	2
4038	4	2,23	175	6	2	1	2
4039	9	3,02	242	9	3	1	2
4040	12	3,33	272	8	3	1	1
4041	7	3,21	259	8	3	1	2
4042	4	2,58	193	7	3	2	2
4043	8	3,01	223	7	4	1	2
4044	2	2,63	200	7	3	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4045	65	2,58	197	7	3	1	2
4046	80	2,70	203	7	4	1	2
4047	55	3,06	235	7	4	1	2
4048	28	4,01	334	10	4	1	2
4049	84	4,86	408	12	4	2	2
4050	67	4,98	418	12	5	2	2
4051	52	5,22	440	13	6	1	1
4052	34	5,49	466	14	5	1	2
4053	32	5,73	496	16	5	1	2
4054	61	6,41	548	18	6	0	1
4055	57	6,39	549	17	6	1	1
4056	63	6,18	547	17	6	1	1
4057	30	6,15	527	17	5	1	2
4058	52	6,17	534	15	6	2	1
4059	50	6,49	560	17	6	2	1
4060	49	6,79	584	18	6	2	1
4061	69	6,81	595	17	6	2	2
4062	66	6,92	601	18	6	2	2
4063	49	7,17	617	20	7	1	2
4064	42	7,33	645	21	6	2	2
4065	27	7,69	681	18	7	0	2
4066	37	7,41	655	17	7	2	2
4067	73	7,17	634	18	6	2	1
4068	61	6,91	616	17	6	1	2
4069	57	6,88	595	15	7	1	2
4070	37	6,85	594	15	7	2	2
4071	40	6,95	615	16	7	2	2
4072	54	7,09	621	16	7	1	2
4073	51	7,27	636	17	7	2	2
4074	63	7,48	651	16	7	2	2
4075	53	7,62	667	19	7	2	2
4076	46	7,91	704	21	7	0	1
4077	48	7,98	706	18	8	2	1
4078	40	8,38	730	18	9	2	2
4079	46	8,55	752	19	8	2	2
4080	59	8,66	760	19	8	2	2
4081	47	8,65	765	19	8	1	2
4082	40	8,63	769	19	8	2	2
4083	70	8,55	760	21	9	2	2
4084	38	8,28	716	19	9	3	2
4085	40	7,58	665	17	8	2	2
4086	43	7,19	626	17	7	2	2
4087	33	6,55	564	19	7	2	1
4088	39	6,71	562	17	6	2	2
4089	56	6,52	555	17	6	2	2
4090	60	6,37	548	18	7	2	2
4091	55	6,38	540	17	7	2	2
4092	53	6,46	545	17	7	3	2
4093	27	6,38	541	18	7	1	2
4094	50	6,36	541	18	7	2	2
4095	53	6,38	547	17	8	2	1
4096	57	6,29	545	17	7	2	2
4097	68	6,22	543	17	7	1	2
4098	48	6,53	560	18	8	1	2
4099	42	6,63	582	19	7	1	2
4100	50	7,27	629	19	8	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4101	41	7,98	691	21	9	3	2
4102	36	7,96	687	20	9	2	1
4103	35	7,67	661	19	9	2	2
4104	53	8,00	692	20	11	2	2
4105	48	7,58	646	20	9	2	3
4106	49	7,62	661	22	9	2	2
4107	28	2,24	163	4	3	1	1
4108	29	1,39	93	3	2	1	1
4109	67	1,39	81	4	2	1	2
4110	83	2,00	136	4	3	1	1
4111	67	2,41	177	6	4	2	1
4112	44	3,36	265	7	6	2	2
4113	50	3,89	315	9	6	2	2
4114	15	4,40	366	12	6	2	2
4115	34	4,40	366	10	6	0	2
4116	32	3,54	274	9	5	1	2
4117	32	2,99	234	8	4	2	1
4118	32	2,72	217	6	4	1	2
4119	39	2,65	201	7	3	2	2
4120	45	2,74	202	7	3	1	2
4121	52	2,83	216	7	4	2	2
4122	39	4,30	365	10	5	1	1
4123	27	5,80	488	14	7	1	2
4124	8	4,37	359	10	5	1	2
4125	32	1,53	87	4	3	1	2
4126	8	3,04	235	7	5	1	2
4127	11	4,64	388	10	8	0	1
4128	15	5,20	435	13	10	1	2
4129	28	5,22	404	22	15	3	2
4130	18	14,59	1199	54	40	6	1
4131	15	11,25	902	42	34	4	2
4132	4	11,25	902	42	34	4	2
4133	6	12,53	755	48	32	13	11
4134	2	16,39	920	52	37	17	12
4135	20	14,19	875	52	42	7	14
4136	6	12,66	855	53	49	0	11
4137	3	13,62	916	61	45	8	16
4138	11	13,69	826	52	49	11	12
4139	4	12,87	754	50	46	7	9
4140	4	12,74	750	45	28	15	14
4141	3	11,46	745	45	28	11	14
4142	8	12,40	735	42	27	11	12
4143	6	11,90	715	41	26	11	12
4144	47	11,45	637	40	26	12	18
4145	39	10,79	649	38	21	7	12
4146	34	10,70	630	30	21	10	13
4147	31	9,84	638	22	20	10	9
4148	35	11,67	686	26	22	12	22
4149	36	11,14	671	30	18	13	16
4150	40	11,58	698	35	30	8	13
4151	41	11,36	681	36	28	9	12
4152	58	11,40	681	38	28	9	12
4153	76	13,87	743	36	16	9	24
4154	51	11,96	716	34	23	9	21
4155	45	9,60	701	25	17	8	5
4156	44	11,34	689	20	18	14	13

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4157	46	11,37	690	26	15	12	20
4158	48	11,41	694	17	14	2	15
4159	47	12,40	731	12	22	12	12
4160	42	12,47	792	16	19	12	23
4161	36	10,21	593	34	10	13	13
4162	31	10,08	757	16	12	3	15
4163	30	13,92	972	22	13	5	13
4164	34	15,11	1046	25	14	14	14
4165	31	13,59	1023	23	15	0	13
4166	32	15,95	1368	26	19	3	12
4167	40	15,95	1368	26	19	3	12
4168	44	20,63	1604	41	23	12	13
4169	38	20,25	1578	31	33	3	12
4170	44	19,31	1677	40	30	13	2
4171	40	24,26	1911	46	34	14	23
4172	37	25,95	2130	54	40	11	8
4173	44	28,01	2278	59	47	0	13
4174	39	28,30	2434	81	63	10	6
4175	40	32,45	2560	88	75	14	7
4176	47	33,38	2548	108	89	14	6
4177	48	32,28	2360	113	95	42	9
4178	36	16,46	1079	47	43	18	19
4179	20	15,82	1049	44	41	19	1
4180	34	16,26	968	41	40	19	8
4181	35	15,15	955	40	39	24	13
4182	33	16,74	1112	46	44	20	12
4183	33	17,49	1185	47	47	19	12
4184	39	17,30	1189	48	48	20	5
4185	46	17,72	1193	50	49	18	12
4186	56	17,97	1241	56	54	21	12
4187	54	19,10	1308	56	59	27	11
4188	52	20,70	1366	67	63	27	12
4189	61	23,75	1651	83	78	31	12
4190	34	27,57	1961	95	94	36	13
4191	59	29,64	1996	96	96	35	14
4192	63	29,96	2032	98	97	35	13
4193	60	31,06	2112	112	107	38	13
4194	34	25,41	1643	101	93	27	14
4195	47	25,76	1700	100	90	25	16
4196	74	26,06	1750	100	89	25	15
4197	62	26,21	1785	112	89	23	11
4198	86	26,35	1795	114	89	23	11
4199	79	27,55	1857	117	99	31	12
4200	70	27,55	1857	117	99	31	12
4201	70	32,80	2270	140	117	38	12
4202	75	39,19	2759	184	143	46	9
4203	61	49,45	3478	233	178	57	19
4204	57	49,45	3478	233	178	57	19
4205	85	53,17	3799	242	197	60	11
4206	65	58,78	4073	256	213	68	12
4207	77	60,89	4334	282	232	71	14
4208	65	63,08	4550	301	251	78	8
4209	55	65,74	4684	316	262	78	7
4210	56	65,78	4693	314	266	85	9
4211	64	65,78	4693	314	266	85	9
4212	61	63,94	4400	300	260	81	9

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4213	20	63,09	4390	300	260	81	9
4214	36	62,89	4392	290	260	81	13
4215	54	62,78	4385	290	260	80	13
4216	53	62,43	4385	295	250	80	14
4217	46	51,69	3394	296	255	54	14
4218	37	52,14	3455	285	250	56	14
4219	55	47,42	3265	285	169	53	11
4220	76	45,37	3077	285	162	49	14
4221	70	39,27	2855	167	151	46	14
4222	63	38,04	2802	145	143	48	14
4223	57	37,43	2775	135	140	49	14
4224	33	33,61	2477	112	117	40	2
4225	63	33,61	2477	112	117	40	2
4226	37	32,42	2324	99	105	40	4
4227	45	33,55	2273	95	100	40	14
4228	44	30,12	2189	85	98	36	13
4229	74	30,57	2219	104	95	35	4
4230	44	26,49	1957	95	86	31	13
4231	20	24,17	1679	75	78	29	4
4232	29	24,82	1703	82	74	28	11
4233	54	24,82	1703	82	74	28	11
4234	64	25,32	1765	82	73	30	15
4235	32	24,89	1817	81	73	33	13
4236	38	26,24	1859	80	69	27	14
4237	38	26,24	1859	80	69	27	14
4238	30	24,81	1908	76	65	26	11
4239	76	24,81	1908	76	65	26	11
4240	75	25,31	1840	73	63	25	14
4241	45	23,85	1687	59	59	24	13
4242	36	22,40	1609	63	58	23	5
4243	45	21,26	1525	52	56	32	15
4244	64	21,89	1471	64	55	29	12
4245	70	19,45	1438	63	54	23	13
4246	72	19,45	1438	63	54	23	13
4247	56	20,32	1462	58	56	31	4
4248	27	21,08	1469	62	56	24	12
4249	45	21,84	1541	56	55	24	6
4250	47	22,21	1589	62	57	24	2
4251	30	22,29	1698	64	55	27	4
4252	27	22,76	1648	62	55	22	13
4253	51	24,10	1702	54	56	23	14
4254	71	26,88	1930	69	67	33	14
4255	61	30,96	2396	80	87	33	15
4256	57	37,94	2941	109	111	40	13
4257	37	41,44	3213	124	123	44	12
4258	33	40,35	3062	126	119	43	7
4259	19	33,86	2454	96	104	38	6
4260	29	28,15	2098	89	89	34	10
4261	33	24,05	1804	82	73	28	15
4262	36	26,49	1957	95	86	31	13
4263	56	24,17	1679	75	78	29	4
4264	67	24,82	1703	82	74	28	11
4265	59	24,82	1703	82	74	28	11
4266	70	25,32	1765	82	73	30	15
4267	50	24,89	1817	81	73	33	13
4268	18	26,24	1859	80	69	27	14

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4269	42	26,24	1859	80	69	27	14
4270	50	24,10	1702	54	56	23	14
4271	49	26,88	1930	69	67	33	14
4272	33	24,05	1804	82	73	28	15
4273	52	26,49	1957	95	86	31	13
4274	48	27,37	2110	94	54	33	14
4275	43	29,67	2584	71	51	17	2
4276	41	28,63	2494	68	48	17	2
4277	37	28,13	2449	66	46	17	2
4278	44	24,12	2081	55	41	17	2
4279	43	24,12	2081	55	41	17	2
4280	51	22,02	1905	50	39	15	2
4281	47	21,91	1894	50	39	15	2
4282	49	21,52	1850	49	37	16	2
4283	41	21,18	1821	49	38	15	2
4284	33	21,28	1843	47	36	14	2
4285	40	20,77	1795	44	35	13	2
4286	45	20,24	1733	43	35	15	3
4287	39	18,15	1556	41	32	14	2
4288	27	11,51	938	26	26	12	2
4289	41	11,48	938	26	26	12	2
4290	42	12,08	1013	26	25	11	1
4291	41	12,85	1078	26	25	10	2
4292	31	13,21	1114	26	25	11	2
4293	26	14,15	1189	31	29	12	2
4294	28	13,58	1134	32	29	12	2
4295	36	14,07	1172	34	32	12	2
4296	52	14,39	1196	35	33	12	2
4297	44	17,99	1479	48	43	17	2
4298	46	20,29	1661	56	50	18	2
4299	32	21,60	1712	76	61	22	2
4300	22	20,83	1643	74	59	21	2
4301	25	21,61	1720	72	59	21	2
4302	24	21,56	1725	74	56	21	2
4303	30	21,60	1712	76	61	22	2
4304	41	20,83	1643	74	59	21	2
4305	39	21,60	1725	72	58	20	2
4306	22	21,62	1729	71	58	20	2
4307	27	21,73	1740	70	59	21	2
4308	28	21,32	1710	72	57	21	2
4309	37	21,97	1735	79	66	22	2
4310	52	24,29	1950	83	67	23	2
4311	45	21,43	1762	67	52	18	2
4312	41	27,33	2300	66	61	22	2
4313	28	28,49	2445	64	57	20	2
4314	38	28,91	2492	61	55	19	3
4315	55	29,58	2543	60	54	19	4
4316	44	26,58	2274	55	51	20	2
4317	36	26,58	2274	55	51	20	2
4318	32	23,37	1987	52	48	18	2
4319	40	23,37	1987	52	48	18	2
4320	37	23,37	1987	52	48	18	2
4321	40	23,37	1987	52	48	18	2
4322	22	23,47	1988	49	48	19	3
4323	40	23,47	1988	49	48	19	3
4324	35	24,97	2162	48	46	18	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4325	41	25,53	2213	54	44	17	2
4326	45	24,78	2175	43	40	16	2
4327	43	24,97	2202	39	38	16	3
4328	34	23,37	1987	52	48	18	2
4329	35	23,47	1988	49	48	19	3
4330	30	23,47	1988	49	48	19	3
4331	35	21,73	1740	70	59	21	2
4332	38	21,32	1710	72	57	21	2
4333	34	21,97	1735	79	66	22	2
4334	26	21,73	1740	70	59	21	2
4335	25	21,32	1710	72	57	21	2
4336	36	13,35	1116	31	26	11	3
4337	36	16,61	1408	40	32	13	3
4338	29	17,19	1455	41	32	13	3
4339	26	18,08	1525	46	34	13	2
4340	24	13,63	1114	37	29	12	3
4341	18	8,53	677	25	20	9	2
4342	15	6,07	460	17	17	7	2
4343	22	6,00	458	16	16	7	2
4344	22	5,56	424	17	14	7	2
4345	35	6,24	489	18	15	6	1
4346	38	6,24	489	18	15	6	1
4347	23	7,49	603	22	16	5	1
4348	24	7,34	594	21	16	6	1
4349	39	7,18	592	18	13	5	2
4350	37	8,91	736	23	16	6	2
4351	28	10,51	891	24	17	6	2
4352	18	10,60	898	25	17	6	2
4353	10	10,50	882	26	17	6	1
4354	34	11,57	983	28	18	7	2
4355	35	12,31	1069	25	19	7	1
4356	42	12,31	1067	23	19	6	2
4357	39	12,42	1066	25	19	7	2
4358	36	9,23	793	20	14	5	2
4359	23	8,55	722	17	14	5	2
4360	29	8,69	743	17	13	4	2
4361	46	9,11	786	20	14	4	2
4362	55	9,81	848	21	13	4	2
4363	74	10,14	880	21	13	4	2
4364	69	11,32	997	26	15	5	1
4365	44	11,63	1027	22	14	5	2
4366	30	11,25	984	22	15	5	2
4367	31	10,82	935	21	14	5	3
4368	43	10,50	907	21	14	5	2
4369	43	11,94	1051	21	14	5	2
4370	30	12,63	1125	20	14	5	2
4371	40	13,82	1227	23	15	4	2
4372	43	13,52	1208	24	15	4	2
4373	27	12,76	1147	23	15	5	2
4374	28	12,57	1107	27	15	4	2
4375	47	13,40	1180	28	15	4	2
4376	61	13,81	1216	28	15	4	2
4377	63	14,05	1224	29	16	5	2
4378	51	14,05	1224	29	16	5	2
4379	34	13,66	1200	31	17	5	2
4380	47	11,93	1048	26	14	5	3

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4381	48	11,93	1048	26	14	5	3
4382	66	11,84	1035	27	15	5	2
4383	45	11,65	1026	25	14	4	2
4384	42	11,64	1023	26	14	4	2
4385	32	11,35	998	26	14	4	2
4386	40	11,14	976	27	14	4	1
4387	36	12,19	1069	30	15	4	2
4388	65	12,64	1114	31	16	4	2
4389	41	14,21	1250	36	19	4	1
4390	74	15,02	1325	37	19	5	1
4391	58	13,75	1214	32	18	5	2
4392	34	11,84	1035	27	15	5	2
4393	24	11,65	1026	25	14	4	2
4394	39	11,64	1023	26	14	4	2
4395	50	11,35	998	26	14	4	2
4396	55	11,81	1001	25	15	4	4
4397	70	11,74	991	26	14	5	4
4398	57	12,38	1048	22	15	6	4
4399	47	13,33	1129	24	16	7	4
4400	40	13,65	1156	25	17	7	4
4401	33	14,34	1149	25	16	7	4
4402	42	9,23	793	20	14	5	2
4403	15	8,55	722	17	14	5	2
4404	4	8,69	743	17	13	4	2
4405	3	9,11	786	20	14	4	2
4406	10	9,81	848	21	13	4	2
4407	5	13,24	848	21	13	4	2
4408	10	5,94	487	16	11	3	2
4409	10	5,43	445	15	10	3	2
4410	13	5,43	445	15	10	3	2
4411	11	5,34	428	14	9	3	1
4412	18	5,48	450	13	8	2	2
4413	2	6,26	512	14	9	4	2
4414	8	6,12	515	13	9	2	2
4415	8	6,12	515	13	9	2	2
4416	7	6,26	525	13	9	2	2
4417	4	6,58	560	14	9	3	2
4418	4	6,63	570	13	8	3	2
4419	6	6,59	565	13	8	2	2
4420	9	6,63	567	14	8	2	2
4421	9	6,72	585	14	8	2	2
4422	94	12,77	1177	20	9	2	2
4423	8	12,37	1130	17	9	4	2
4424	79	12,27	1120	17	9	4	2
4425	81	12,34	1125	18	9	4	2
4426	81	12,42	1130	18	10	4	2
4427	81	12,55	1145	17	10	4	2
4428	59	12,42	1135	17	9	4	2
4429	4	12,37	1130	19	9	4	2
4430	59	11,32	1043	19	8	2	2
4431	84	10,80	990	18	8	2	1
4432	98	10,58	963	18	8	2	1
4433	98	10,21	917	18	8	2	1
4434	98	9,99	894	19	8	2	1
4435	80	9,64	865	17	7	2	1
4436	57	9,47	851	16	8	3	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4437	55	9,58	869	19	8	2	1
4438	52	7,14	619	20	8	2	1
4439	70	9,56	847	18	7	3	2
4440	72	9,50	855	19	7	2	1
4441	82	9,50	855	19	7	2	1
4442	86	9,42	848	20	8	1	1
4443	82	9,42	848	20	8	1	1
4444	85	10,56	942	20	9	3	2
4445	121	11,12	1003	21	10	2	1
4446	109	11,81	1070	23	9	2	2
4447	94	11,81	1070	23	9	2	2
4448	94	11,81	1070	23	9	2	2
4449	96	12,46	1137	25	9	2	1
4450	95	13,61	1237	27	10	2	2
4451	71	14,24	1317	26	10	2	1
4452	85	14,24	1317	26	10	2	1
4453	95	14,82	1362	27	10	2	1
4454	85	15,38	1419	29	10	2	2
4455	102	15,38	1419	29	10	2	2
4456	94	16,23	1486	28	12	2	1
4457	110	16,23	1486	28	12	2	1
4458	97	16,14	1487	30	12	2	2
4459	117	16,53	1522	29	11	3	1
4460	86	16,53	1522	29	11	3	1
4461	86	14,58	1331	30	12	2	2
4462	52	14,52	1320	30	12	2	2
4463	56	14,82	1361	28	11	2	1
4464	90	16,06	1482	25	11	2	2
4465	82	15,45	1423	24	11	3	2
4466	50	15,07	1390	24	11	3	1
4467	18	14,02	1288	22	9	2	1
4468	53	12,91	1178	22	9	3	1
4469	52	12,54	1141	19	9	2	2
4470	54	12,84	1170	20	9	3	2
4471	34	9,50	855	19	7	2	1
4472	53	9,50	855	19	7	2	1
4473	74	9,42	848	20	8	1	1
4474	82	9,42	848	20	8	1	1
4475	54	10,56	942	20	9	3	2
4476	58	11,12	1003	21	10	2	1
4477	66	11,81	1070	23	9	2	2
4478	63	11,81	1070	23	9	2	2
4479	75	11,81	1070	23	9	2	2
4480	70	11,94	1085	25	9	2	1
4481	108	11,84	1035	27	15	5	2
4482	76	11,65	1026	25	14	4	2
4483	93	11,64	1023	26	14	4	2
4484	88	11,35	998	26	14	4	2
4485	78	11,81	1001	25	15	4	4
4486	98	12,55	1145	17	10	4	2
4487	91	12,42	1135	17	9	4	2
4488	99	12,41	1130	19	9	4	2
4489	91	10,89	990	18	8	2	2
4490	74	11,02	998	18	8	2	2
4491	94	10,97	1000	17	8	2	2
4492	107	11,78	1080	18	9	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4493	78	7,12	624	15	6	2	2
4494	91	9,81	820	19	7	2	2
4495	72	14,79	1349	30	11	3	2
4496	100	14,79	1349	30	11	3	2
4497	96	11,76	1071	24	9	2	1
4498	37	8,36	739	19	8	3	2
4499	55	10,25	916	23	8	1	1
4500	66	10,25	916	23	8	1	1
4501	55	10,57	951	23	10	2	1
4502	47	11,76	1064	20	10	2	2
4503	40	12,40	1137	22	10	2	1
4504	41	12,40	1137	22	10	2	1
4505	37	13,40	1226	23	10	2	3
4506	47	13,57	1245	23	11	2	1
4507	45	13,80	1265	23	12	2	2
4508	46	14,14	1286	25	11	2	1
4509	57	13,95	1292	24	10	1	2
4510	53	13,95	1292	24	10	1	2
4511	51	14,44	1333	25	11	2	2
4512	55	12,81	1166	29	11	2	1
4513	60	12,16	1096	30	11	3	1
4514	55	14,39	1319	30	11	2	1
4515	41	13,14	1215	21	9	2	2
4516	58	12,79	1156	22	11	2	2
4517	46	12,35	1126	22	9	2	1
4518	51	12,54	1151	22	10	2	2
4519	53	11,99	1090	22	9	2	1
4520	52	11,65	1056	21	10	2	2
4521	50	11,46	1037	21	10	2	2
4522	54	10,98	991	19	9	2	2
4523	53	10,84	978	20	9	3	2
4524	50	10,81	981	17	9	3	2
4525	50	11,68	1048	20	9	2	3
4526	60	11,29	1024	21	8	2	2
4527	52	11,05	1012	22	8	2	1
4528	45	11,46	1035	23	9	1	1
4529	47	11,12	1007	24	9	2	2
4530	47	11,23	1012	23	9	2	1
4531	55	11,31	1018	24	9	2	2
4532	46	11,60	1045	23	9	3	1
4533	47	11,49	1040	24	9	2	1
4534	40	11,21	1018	22	8	1	2
4535	54	10,98	1000	21	7	1	2
4536	51	11,44	1027	22	9	2	2
4537	50	10,95	994	22	9	2	1
4538	53	7,57	665	21	8	2	1
4539	53	10,69	972	18	7	1	2
4540	60	9,74	873	21	8	2	2
4541	46	5,74	515	11	4	2	1
4542	48	5,69	499	11	6	1	2
4543	55	9,17	827	19	7	1	1
4544	56	10,24	922	21	7	2	2
4545	61	10,76	971	22	8	2	1
4546	46	10,78	972	22	8	2	1
4547	40	10,82	976	22	8	1	1
4548	47	10,07	913	20	8	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4549	37	7,86	706	17	6	1	1
4550	35	7,05	623	16	6	1	2
4551	43	10,13	916	23	8	1	2
4552	53	9,55	852	20	8	2	2
4553	46	10,77	970	20	10	2	1
4554	38	10,87	979	19	9	2	1
4555	45	10,77	994	19	9	1	0
4556	47	12,90	1168	23	10	3	2
4557	27	13,27	1217	24	11	1	2
4558	26	13,43	1219	24	12	2	2
4559	56	13,58	1240	25	12	3	1
4560	57	14,73	1360	27	12	2	1
4561	53	12,67	1141	29	11	2	1
4562	39	12,54	1132	30	12	3	1
4563	49	14,29	1311	25	11	2	1
4564	45	14,21	1306	25	11	2	1
4565	59	14,13	1283	24	11	3	2
4566	46	13,71	1243	24	10	3	2
4567	45	13,10	1201	23	10	3	2
4568	55	12,82	1171	22	10	2	2
4569	74	11,98	1097	20	9	2	2
4570	47	10,95	1002	19	8	2	2
4571	43	10,31	934	19	8	2	2
4572	36	11,27	1028	19	9	2	1
4573	45	11,11	1004	21	9	2	2
4574	49	10,55	940	23	9	3	2
4575	49	10,19	917	22	8	2	2
4576	43	7,12	632	15	7	2	2
4577	67	10,26	916	22	8	3	2
4578	64	10,19	917	22	8	2	2
4579	54	7,12	632	15	7	2	2
4580	70	7,27	625	14	8	2	2
4581	60	6,79	580	14	7	2	2
4582	56	6,07	512	14	6	2	2
4583	48	10,63	942	23	9	1	2
4584	42	11,05	982	23	9	2	1
4585	48	12,10	1077	28	11	1	2
4586	47	11,70	1040	25	10	2	2
4587	56	11,45	1023	25	10	2	2
4588	49	11,26	1004	23	10	2	2
4589	61	11,87	1070	26	11	2	1
4590	59	11,86	1069	26	11	2	1
4591	59	12,12	1050	37	10	2	3
4592	16	8,03	677	25	11	2	2
4593	35	5,66	460	17	10	1	2
4594	24	5,64	458	16	9	2	2
4595	17	3,08	243	7	4	2	1
4596	22	2,80	219	5	4	1	1
4597	27	2,74	206	6	4	1	1
4598	23	2,51	180	7	3	1	1
4599	27	1,92	136	5	2	1	2
4600	45	1,89	129	5	3	1	1
4601	41	1,62	121	4	2	1	1
4602	39	1,79	120	4	2	1	3
4603	33	1,50	90	5	3	1	1
4604	35	1,76	115	4	3	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4605	37	1,48	112	2	1	1	1
4606	35	1,93	132	4	3	1	2
4607	43	1,66	112	3	1	1	2
4608	53	1,76	117	4	2	1	2
4609	53	1,53	96	2	3	2	2
4610	52	1,53	96	2	3	2	2
4611	46	1,23	80	2	2	1	1
4612	52	1,25	76	3	2	1	1
4613	55	1,25	76	3	2	1	1
4614	56	3,65	302	10	4	1	2
4615	63	4,42	375	9	5	1	1
4616	60	4,64	397	10	4	1	3
4617	67	4,75	412	8	4	1	2
4618	35	5,06	428	10	5	2	2
4619	23	4,93	416	10	5	1	2
4620	30	4,72	404	9	4	1	2
4621	30	4,77	406	10	6	1	1
4622	49	4,67	400	9	5	2	1
4623	57	4,66	391	9	4	2	1
4624	37	4,57	386	9	5	2	1
4625	32	4,62	387	11	5	1	1
4626	42	4,49	378	11	5	1	1
4627	41	4,73	391	11	6	2	1
4628	45	4,60	388	10	6	2	1
4629	52	4,52	382	11	5	2	1
4630	53	4,54	384	11	5	1	1
4631	51	4,61	387	10	5	2	2
4632	56	4,29	362	10	4	1	1
4633	52	4,96	425	11	6	1	1
4634	32	5,82	495	13	7	2	1
4635	47	6,12	510	16	7	2	1
4636	40	6,11	508	16	7	2	1
4637	57	4,89	403	13	7	2	1
4638	51	5,93	506	12	7	2	1
4639	46	5,68	480	15	7	1	2
4640	50	5,52	460	13	7	2	2
4641	45	5,05	433	12	5	1	2
4642	43	4,90	414	12	5	1	2
4643	42	5,06	427	11	5	2	2
4644	61	6,30	546	13	7	2	1
4645	48	8,66	762	19	11	3	1
4646	44	12,02	1049	28	16	4	1
4647	81	16,21	1427	39	23	6	2
4648	46	21,26	1869	51	30	9	1
4649	60	21,45	1859	58	36	10	2
4650	74	26,68	2373	54	39	10	2
4651	74	25,37	2259	50	37	10	1
4652	85	25,37	2259	50	37	10	1
4653	66	23,89	2122	48	34	10	2
4654	31	21,15	1880	43	31	7	2
4655	44	14,48	1268	28	20	6	2
4656	26	12,26	1061	24	17	6	2
4657	34	10,34	900	21	14	3	1
4658	21	9,42	772	29	17	5	2
4659	21	13,15	1130	29	21	6	2
4660	31	13,90	1200	32	23	6	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4661	39	13,20	1132	30	23	6	2
4662	50	12,61	1089	29	21	5	2
4663	54	12,27	1068	28	20	5	2
4664	48	10,84	933	24	18	5	1
4665	44	9,55	825	21	15	4	1
4666	36	8,89	772	19	13	4	1
4667	44	9,41	811	20	14	4	2
4668	37	10,46	901	22	15	4	2
4669	45	12,29	1064	28	19	5	1
4670	43	15,58	1339	42	25	6	2
4671	27	16,74	1433	45	27	7	1
4672	19	15,67	1346	41	25	6	1
4673	32	11,70	987	31	19	6	2
4674	49	10,68	897	29	17	5	1
4675	46	9,61	798	26	16	5	3
4676	38	7,11	584	21	12	4	2
4677	42	3,95	284	14	9	3	2
4678	51	4,52	352	15	9	3	2
4679	34	6,38	530	16	10	4	2
4680	52	6,69	551	15	11	4	2
4681	21	6,26	512	14	9	4	2
4682	43	6,12	515	13	9	2	2
4683	24	6,12	515	13	9	2	2
4684	45	5,41	452	11	9	3	2
4685	75	5,74	477	14	10	3	2
4686	47	6,26	520	15	11	3	1
4687	57	5,18	419	12	9	3	1
4688	30	3,04	226	7	6	3	2
4689	42	3,28	243	10	6	4	2
4690	16	3,19	240	9	6	1	2
4691	13	2,78	218	7	5	2	2
4692	15	2,44	177	8	4	2	2
4693	42	2,88	221	6	4	3	2
4694	47	2,68	206	5	5	3	2
4695	39	2,34	175	5	4	2	2
4696	12	2,11	145	4	3	3	2
4697	9	2,42	180	6	4	2	2
4698	13	2,20	162	5	3	2	1
4699	8	1,71	112	3	2	2	2
4700	6	1,14	66	2	2	2	1
4701	5	1,77	126	3	2	1	1
4702	8	2,26	167	5	3	2	2
4703	6	2,50	176	6	4	2	2
4704	14	3,58	297	7	4	2	1
4705	6	3,79	307	7	5	2	2
4706	30	2,70	216	6	3	1	1
4707	49	2,78	224	6	3	1	1
4708	44	2,85	223	7	3	2	2
4709	49	2,82	221	6	3	1	2
4710	51	2,78	215	6	3	1	1
4711	49	2,74	210	6	3	1	1
4712	56	3,11	246	7	4	1	2
4713	49	2,74	216	8	4	2	1
4714	55	3,83	303	8	5	3	3
4715	60	3,78	304	8	4	3	2
4716	56	3,61	308	7	3	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4717	58	3,64	309	7	3	1	2
4718	49	3,73	311	8	3	2	2
4719	46	3,82	311	8	5	2	2
4720	53	3,85	314	8	4	1	2
4721	50	3,80	316	7	4	1	2
4722	47	3,93	322	8	4	1	2
4723	52	4,03	328	9	5	2	2
4724	48	4,08	340	9	4	2	2
4725	46	4,24	366	9	4	1	2
4726	71	4,28	374	9	4	1	2
4727	61	4,61	394	8	4	2	2
4728	45	4,50	387	8	4	2	2
4729	64	3,96	330	8	3	2	2
4730	53	4,75	396	8	4	2	1
4731	47	4,50	382	6	4	1	2
4732	47	4,26	361	7	3	2	2
4733	38	4,22	350	7	3	2	2
4734	38	4,02	342	7	3	2	2
4735	40	3,96	336	7	4	1	2
4736	31	3,73	317	8	3	1	2
4737	34	3,55	292	8	4	1	2
4738	45	3,47	271	8	4	2	2
4739	44	3,79	313	7	4	2	2
4740	46	4,24	363	8	4	2	1
4741	80	4,31	367	8	4	1	1
4742	62	4,19	364	7	4	2	1
4743	71	4,35	374	8	4	1	2
4744	48	4,41	380	9	4	1	2
4745	53	4,29	373	5	2	1	1
4746	63	4,31	371	6	3	1	1
4747	33	4,00	351	6	3	1	1
4748	30	3,97	341	6	4	1	1
4749	28	3,84	321	6	4	1	1
4750	33	3,79	300	7	3	2	1
4751	26	3,92	320	7	4	2	2
4752	19	3,84	314	9	4	2	2
4753	34	3,80	313	8	3	2	2
4754	68	3,83	317	8	4	1	2
4755	26	3,81	321	8	4	1	2
4756	35	3,87	325	7	4	2	2
4757	40	4,02	327	9	4	2	1
4758	47	4,02	330	10	5	1	2
4759	43	2,83	220	7	3	1	2
4760	50	4,02	325	8	4	2	1
4761	47	3,79	316	7	4	1	2
4762	60	3,70	310	7	4	1	2
4763	62	3,63	303	7	4	1	2
4764	52	3,68	304	8	4	1	2
4765	63	3,76	310	7	3	1	2
4766	70	3,80	321	9	3	2	2
4767	60	4,20	353	9	3	2	2
4768	53	4,68	399	10	4	1	2
4769	80	4,54	384	9	4	1	2
4770	61	4,64	393	9	4	1	2
4771	38	5,11	431	9	5	1	2
4772	48	5,15	441	10	5	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4773	52	3,05	244	7	4	1	2
4774	42	2,93	230	5	3	1	2
4775	24	2,53	220	5	3	1	1
4776	29	2,93	239	5	3	2	2
4777	32	3,62	286	6	4	2	2
4778	38	4,07	335	7	5	2	2
4779	49	4,87	415	10	5	2	2
4780	51	4,87	415	10	5	2	2
4781	52	6,58	574	13	6	2	2
4782	0	3,57	287	7	4	1	2
4783	56	3,62	293	7	4	2	1
4784	55	3,65	300	7	4	1	1
4785	59	3,75	321	7	3	1	2
4786	51	4,08	346	8	4	2	1
4787	44	3,94	332	8	4	2	1
4788	55	3,73	304	9	4	1	2
4789	53	4,66	395	8	4	1	2
4790	30	4,81	406	8	4	2	2
4791	41	4,83	419	8	5	2	2
4792	49	5,27	457	10	4	2	1
4793	46	5,38	472	9	6	1	1
4794	48	5,50	483	11	4	2	1
4795	36	5,68	488	10	6	1	1
4796	40	5,62	485	10	6	1	1
4797	39	5,28	467	9	5	1	1
4798	30	4,98	437	10	5	1	2
4799	35	5,00	432	8	5	2	2
4800	36	5,03	428	9	5	1	3
4801	38	4,94	426	9	3	1	3
4802	41	4,91	425	9	4	2	2
4803	37	4,90	427	9	4	2	2
4804	42	4,91	428	9	4	1	2
4805	39	4,98	426	8	4	2	1
4806	39	4,60	403	7	3	1	2
4807	36	4,49	378	8	4	2	1
4808	35	4,48	376	8	4	1	1
4809	39	4,57	381	9	4	1	2
4810	61	4,43	369	10	4	1	2
4811	30	4,49	373	8	3	2	2
4812	52	4,57	383	10	4	1	2
4813	48	4,75	407	10	4	1	1
4814	45	4,97	427	10	4	2	2
4815	61	5,32	448	11	4	2	2
4816	47	5,45	474	12	5	1	2
4817	23	4,65	393	11	5	1	1
4818	33	5,55	482	11	5	2	2
4819	41	5,64	493	11	5	1	1
4820	35	5,71	495	10	5	2	1
4821	31	5,51	481	11	4	2	2
4822	24	5,36	464	11	4	3	2
4823	31	5,23	454	11	4	2	1
4824	37	5,13	450	9	4	1	2
4825	28	5,01	435	9	5	1	1
4826	34	4,62	402	7	4	1	1
4827	33	4,64	397	7	5	0	2
4828	49	4,75	400	6	4	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4829	30	4,51	393	8	3	1	2
4830	23	4,20	358	7	4	1	1
4831	21	3,93	327	6	4	1	2
4832	26	3,85	319	7	4	1	1
4833	41	4,27	355	7	4	1	1
4834	36	3,94	315	10	4	2	1
4835	50	4,24	350	8	4	1	2
4836	45	4,48	390	8	4	1	2
4837	53	4,74	405	7	4	1	1
4838	49	5,11	446	9	5	1	1
4839	48	5,35	468	9	4	2	2
4840	56	5,65	491	10	5	1	2
4841	51	5,82	506	9	5	1	2
4842	54	5,87	507	9	4	1	2
4843	50	5,74	509	8	4	1	2
4844	49	5,67	503	8	4	1	2
4845	32	5,41	474	8	4	1	1
4846	40	5,35	465	8	5	2	1
4847	41	5,09	448	7	4	1	1
4848	45	5,05	431	10	5	1	2
4849	47	4,96	418	10	5	2	2
4850	36	5,02	420	9	5	2	2
4851	46	4,93	427	8	4	2	1
4852	42	4,93	426	9	4	2	1
4853	54	4,92	420	10	4	1	2
4854	41	4,87	407	8	4	2	2
4855	43	4,86	416	9	4	1	2
4856	44	4,60	392	8	4	0	2
4857	51	4,51	383	8	4	1	1
4858	61	4,23	370	8	3	1	1
4859	47	4,11	367	7	3	1	1
4860	57	3,50	281	9	3	1	2
4861	56	4,78	409	8	4	1	2
4862	53	4,98	424	9	5	1	2
4863	50	5,02	424	8	4	2	2
4864	52	5,40	461	8	4	1	2
4865	42	5,57	485	9	4	2	1
4866	65	5,30	461	11	4	2	2
4867	52	4,01	341	8	3	2	2
4868	55	0,71	57	1	1	1	1
4869	47	5,03	424	8	4	2	2
4870	45	5,40	460	8	4	1	2
4871	39	5,57	485	9	4	2	1
4872	49	5,41	461	8	4	1	2
4873	46	5,57	485	9	4	2	1
4874	47	5,41	461	8	4	1	2
4875	45	5,57	485	9	4	2	1
4876	41	4,04	339	7	4	1	2
4877	28	3,23	266	6	3	1	2
4878	38	2,70	218	6	3	2	1
4879	44	1,86	141	2	2	2	1
4880	52	1,86	141	2	2	2	1
4881	13	1,64	120	5	2	0	1
4882	8	1,85	131	2	2	2	2
4883	7	2,03	150	3	2	0	3
4884	9	2,10	153	3	2	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4885	8	1,97	135	4	2	2	2
4886	9	1,97	135	4	2	2	2
4887	8	1,97	135	4	2	2	2
4888	9	1,97	135	4	2	2	2
4889	8	1,94	133	5	2	1	1
4890	8	1,90	139	2	2	1	2
4891	8	2,01	147	2	2	2	1
4892	8	2,01	147	2	2	2	1
4893	8	2,01	147	2	2	2	1
4894	9	1,92	144	3	2	2	2
4895	11	2,60	197	4	2	2	1
4896	33	3,13	237	7	3	1	1
4897	30	3,18	256	4	2	2	2
4898	32	3,41	286	7	2	1	1
4899	23	3,69	306	5	3	1	2
4900	22	2,59	250	5	0	0	0
4901	14	3,03	236	4	2	2	3
4902	37	3,08	252	4	3	2	1
4903	27	3,08	252	4	3	2	1
4904	35	3,17	264	4	2	2	2
4905	26	3,84	319	6	3	2	2
4906	32	4,11	357	7	3	1	2
4907	50	4,70	403	7	3	1	1
4908	49	5,12	444	7	3	0	2
4909	50	5,19	455	8	3	1	2
4910	54	5,48	478	9	3	2	2
4911	36	5,52	483	8	2	2	2
4912	41	5,51	485	10	4	2	2
4913	36	5,56	495	9	4	1	1
4914	40	5,77	504	7	4	2	1
4915	41	5,76	511	7	4	2	2
4916	40	5,67	514	7	4	1	2
4917	40	5,08	423	7	4	2	2
4918	33	3,73	329	5	2	1	2
4919	29	3,71	318	6	3	1	2
4920	35	3,71	312	5	3	2	2
4921	33	3,73	310	5	3	2	2
4922	35	3,43	284	4	2	2	1
4923	36	3,77	314	6	4	1	2
4924	42	3,87	321	8	4	1	1
4925	45	4,03	327	9	5	2	2
4926	38	4,03	332	9	5	1	2
4927	30	4,12	344	9	4	2	2
4928	20	4,25	374	9	4	1	1
4929	22	4,25	374	9	4	1	1
4930	38	4,67	401	9	5	2	1
4931	40	4,51	385	9	5	2	1
4932	54	4,44	375	9	4	1	2
4933	52	4,23	369	6	2	1	2
4934	59	4,93	416	10	3	1	2
4935	52	5,10	453	8	3	0	1
4936	54	5,58	496	11	3	0	1
4937	59	5,58	496	11	3	0	1
4938	54	5,76	509	9	3	1	2
4939	53	5,87	517	9	3	2	2
4940	52	5,92	530	10	4	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4941	49	5,95	533	10	4	1	2
4942	56	5,82	515	9	2	2	2
4943	57	5,87	519	11	4	2	2
4944	61	5,87	519	11	4	2	2
4945	48	5,96	514	9	3	2	1
4946	55	5,42	468	9	3	1	1
4947	35	4,38	367	6	2	1	1
4948	50	4,03	349	7	3	1	2
4949	65	3,07	255	5	2	2	2
4950	42	3,45	268	5	2	2	2
4951	39	3,29	273	5	2	1	2
4952	44	3,21	273	4	3	1	2
4953	48	3,25	270	5	2	2	2
4954	38	3,73	321	5	2	1	1
4955	44	3,87	334	5	1	1	3
4956	58	3,71	314	6	2	2	2
4957	53	4,01	348	6	2	2	1
4958	51	4,11	350	6	2	2	2
4959	61	4,06	345	6	2	2	2
4960	50	4,01	340	6	2	2	2
4961	48	4,16	355	6	2	2	2
4962	59	4,16	350	6	2	2	2
4963	15	3,98	340	6	2	1	2
4964	40	3,92	335	6	3	1	2
4965	53	4,13	357	6	3	1	2
4966	33	4,43	378	8	2	2	3
4967	44	4,40	386	9	3	1	1
4968	46	4,51	382	8	3	0	1
4969	64	4,61	398	7	3	2	1
4970	53	4,51	396	8	3	1	1
4971	47	2,54	198	4	3	2	2
4972	57	2,88	213	6	3	1	3
4973	52	2,89	232	4	3	1	1
4974	39	3,14	253	4	3	2	2
4975	50	3,41	294	6	3	2	1
4976	55	3,35	281	4	2	1	2
4977	59	2,51	199	3	2	1	1
4978	50	1,99	144	2	2	1	1
4979	50	1,81	137	3	2	1	1
4980	44	3,06	254	5	2	1	1
4981	26	4,43	374	8	3	1	2
4982	53	4,26	364	6	2	1	2
4983	51	4,22	352	5	2	1	2
4984	61	3,90	333	5	2	1	1
4985	15	3,72	327	6	2	1	2
4986	21	4,13	348	7	3	1	2
4987	55	4,19	359	7	2	2	2
4988	43	4,14	360	7	3	1	1
4989	35	4,33	375	8	2	1	2
4990	32	4,78	426	7	2	1	2
4991	25	5,45	471	9	3	2	2
4992	36	4,43	378	5	2	1	2
4993	61	4,15	353	5	3	2	2
4994	50	4,13	344	6	3	1	2
4995	55	4,14	353	6	2	1	1
4996	70	4,16	363	6	2	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
4997	62	4,34	375	7	2	2	1
4998	56	4,42	380	7	3	2	1
4999	59	4,35	365	7	3	2	2
5000	53	4,11	344	5	3	1	2
5001	3	4,11	344	5	3	1	2
5002	69	4,31	381	6	2	1	1
5003	71	4,31	381	6	2	1	1
5004	20	4,62	406	5	2	2	2
5005	64	4,73	415	6	2	2	2
5006	67	4,86	433	4	2	2	1
5007	78	4,77	433	3	2	1	1
5008	72	4,93	438	5	2	2	2
5009	56	5,05	449	6	3	2	2
5010	68	5,20	468	5	2	1	2
5011	72	4,61	407	7	2	2	2
5012	81	5,73	521	8	3	1	1
5013	68	6,18	565	8	2	1	2
5014	55	6,18	565	8	2	1	2
5015	82	6,62	587	9	3	2	2
5016	66	6,43	589	7	3	1	1
5017	85	6,46	579	7	3	1	2
5018	64	6,62	598	6	3	2	1
5019	52	6,53	599	9	2	1	2
5020	52	6,85	613	7	3	1	3
5021	60	6,96	636	8	3	1	2
5022	50	6,90	629	8	3	1	1
5023	51	6,80	626	7	3	1	2
5024	26	6,86	626	8	3	1	1
5025	58	6,60	611	9	3	1	2
5026	71	6,53	587	9	3	1	2
5027	72	6,16	558	9	2	2	1
5028	71	6,25	573	8	3	2	1
5029	63	6,35	580	8	3	2	1
5030	77	6,42	590	8	3	1	1
5031	51	6,44	585	9	2	2	1
5032	71	5,97	536	6	3	1	1
5033	71	5,95	532	7	3	1	1
5034	103	5,87	515	7	3	1	2
5035	77	6,19	558	9	3	1	1
5036	69	5,73	524	8	2	1	1
5037	74	5,36	477	7	2	2	1
5038	62	5,76	512	8	3	1	2
5039	57	5,56	500	5	2	1	2
5040	60	5,54	495	4	2	1	3
5041	82	5,49	490	4	2	1	1
5042	62	5,49	495	4	2	1	1
5043	57	5,34	480	4	2	1	2
5044	79	5,11	450	4	3	1	2
5045	76	5,11	445	4	3	1	2
5046	63	5,43	475	5	3	1	2
5047	65	5,28	479	5	3	2	2
5048	83	5,41	485	6	3	1	2
5049	80	5,80	509	7	3	1	1
5050	71	7,27	676	7	2	1	1
5051	69	7,27	676	7	2	1	1
5052	68	8,23	761	9	3	1	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5053	74	9,14	842	11	4	2	2
5054	57	8,97	827	10	4	2	2
5055	51	7,18	656	7	3	2	1
5056	74	5,36	474	8	4	1	1
5057	74	5,34	465	8	5	2	1
5058	77	5,10	436	10	5	1	2
5059	75	4,84	415	10	5	1	2
5060	74	4,99	418	10	5	2	2
5061	94	5,04	420	9	5	2	2
5062	73	4,92	427	8	4	2	1
5063	107	4,94	426	9	4	2	1
5064	70	4,91	420	10	4	1	2
5065	74	4,72	416	6	3	1	1
5066	57	4,72	416	6	3	1	1
5067	53	9,81	904	15	5	2	2
5068	58	9,81	904	15	5	2	2
5069	70	4,64	398	9	3	1	2
5070	32	4,64	398	9	3	1	2
5071	83	4,88	434	7	3	1	1
5072	24	5,50	493	9	3	1	2
5073	72	6,22	560	7	3	1	2
5074	80	6,69	609	9	4	2	2
5075	49	6,89	634	9	4	2	2
5076	74	8,08	739	11	4	1	2
5077	71	7,06	636	10	4	1	1
5078	69	7,06	636	10	4	1	1
5079	70	7,06	636	10	4	1	1
5080	68	9,07	838	10	5	1	2
5081	74	9,31	863	9	4	2	2
5082	71	9,65	905	9	4	2	1
5083	65	10,06	935	11	5	1	2
5084	71	10,14	939	11	5	1	2
5085	80	10,34	957	10	5	2	2
5086	53	10,38	966	10	5	2	1
5087	66	10,51	966	12	6	1	3
5088	70	10,63	983	11	5	1	2
5089	32	10,53	983	12	5	0	2
5090	52	10,34	955	11	5	2	2
5091	101	9,91	920	11	5	1	3
5092	46	10,09	944	11	5	2	1
5093	75	10,09	944	11	5	2	1
5094	80	10,05	934	12	6	1	2
5095	42	10,08	932	11	5	1	2
5096	71	10,74	1000	10	5	1	1
5097	60	10,52	989	11	5	0	1
5098	70	10,67	997	11	6	1	1
5099	58	10,83	1005	11	6	1	2
5100	25	10,01	929	13	6	1	1
5101	37	9,39	869	9	6	1	2
5102	59	9,46	875	9	5	2	2
5103	49	9,47	865	11	5	2	2
5104	73	9,81	904	12	5	2	2
5105	62	10,27	957	11	6	1	1
5106	73	10,56	987	13	6	1	1
5107	68	11,16	1037	14	6	1	2
5108	87	10,71	992	16	6	0	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5109	70	12,09	1126	12	7	1	1
5110	72	12,23	1127	15	7	1	1
5111	86	12,23	1127	15	7	1	1
5112	79	11,90	1102	15	7	1	1
5113	75	12,22	1126	15	7	2	1
5114	49	12,18	1126	15	7	1	1
5115	58	12,22	1138	15	7	1	2
5116	60	12,34	1158	15	6	2	2
5117	73	12,33	1153	15	6	2	2
5118	59	12,10	1133	15	6	1	2
5119	57	11,84	1111	13	6	1	2
5120	53	12,06	1122	15	6	2	2
5121	55	12,02	1118	14	6	0	2
5122	44	12,00	1120	13	6	1	1
5123	58	10,20	937	14	6	1	2
5124	50	9,06	825	15	6	1	2
5125	57	11,36	1051	15	6	1	2
5126	58	13,55	1265	16	6	1	1
5127	65	13,29	1249	14	5	1	1
5128	63	12,53	1167	10	5	1	3
5129	54	12,23	1147	9	5	1	2
5130	38	11,20	1051	10	5	1	2
5131	89	11,96	1111	12	5	2	2
5132	78	12,00	1120	14	5	1	2
5133	80	12,15	1125	14	5	2	2
5134	87	12,19	1128	14	5	1	2
5135	76	12,86	1200	14	5	2	2
5136	80	13,07	1225	14	5	1	1
5137	64	13,07	1220	14	5	1	2
5138	66	13,10	1225	13	5	1	2
5139	77	6,76	587	9	3	2	2
5140	60	6,43	589	7	3	1	1
5141	63	6,46	579	7	3	1	2
5142	93	6,62	598	6	3	2	1
5143	55	6,53	599	9	2	1	2
5144	73	8,18	741	9	4	2	1
5145	107	10,21	952	11	4	1	2
5146	105	11,54	1074	13	7	2	2
5147	106	11,54	1074	13	7	2	2
5148	129	12,44	1158	14	6	2	2
5149	139	12,76	1186	14	6	2	3
5150	117	10,91	1017	15	7	1	1
5151	69	11,66	1083	15	7	1	2
5152	101	13,77	1281	14	8	2	2
5153	92	13,75	1281	14	7	2	3
5154	97	13,69	1280	15	6	1	3
5155	65	13,54	1272	14	7	1	2
5156	78	13,54	1272	14	7	1	2
5157	103	13,54	1272	14	7	1	2
5158	33	13,13	1159	13	7	1	2
5159	77	10,62	933	11	6	1	2
5160	46	8,10	708	8	5	1	2
5161	36	5,59	482	6	5	1	2
5162	48	4,19	358	5	4	2	2
5163	35	5,82	509	7	4	2	2
5164	41	6,55	587	7	4	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5165	60	6,96	632	9	4	1	1
5166	53	7,16	654	11	4	1	2
5167	73	7,28	653	11	6	1	2
5168	60	6,49	585	9	5	0	2
5169	68	7,74	702	9	5	2	2
5170	66	7,80	708	10	5	2	2
5171	55	8,03	735	10	4	1	3
5172	68	8,64	797	11	4	2	1
5173	68	9,26	852	11	6	1	2
5174	53	9,88	905	12	6	1	2
5175	57	10,39	959	13	6	2	2
5176	40	10,43	963	12	6	2	2
5177	39	10,51	972	11	6	1	3
5178	53	11,52	1063	13	7	2	2
5179	57	12,05	1103	15	8	4	3
5180	60	11,69	1066	15	8	4	2
5181	67	10,23	918	16	8	3	2
5182	55	11,89	1096	15	8	2	2
5183	56	12,13	1137	12	7	3	2
5184	64	12,91	1197	14	8	2	2
5185	74	12,97	1198	14	8	2	2
5186	62	13,22	1214	15	9	2	1
5187	78	13,30	1231	15	9	2	2
5188	78	13,16	1213	14	8	2	3
5189	78	13,16	1213	14	8	2	3
5190	78	13,16	1213	14	8	2	3
5191	68	7,27	650	13	6	1	2
5192	66	7,29	650	12	6	2	1
5193	66	7,29	650	12	6	2	1
5194	69	7,73	681	12	6	2	1
5195	37	7,95	714	9	7	1	1
5196	34	7,66	689	10	5	2	1
5197	35	7,68	705	9	5	0	1
5198	42	8,11	732	12	6	2	1
5199	47	8,61	769	10	5	1	1
5200	49	8,73	795	9	6	2	1
5201	65	9,23	842	11	6	2	1
5202	60	9,46	866	11	7	2	2
5203	51	7,86	711	10	6	2	2
5204	57	10,38	957	10	7	3	2
5205	57	10,43	972	10	6	2	1
5206	49	10,88	1004	11	7	2	1
5207	61	10,98	1017	14	7	2	1
5208	56	11,07	1021	15	7	2	2
5209	62	10,45	966	11	7	2	1
5210	68	9,60	883	11	6	2	1
5211	46	9,63	882	14	7	2	1
5212	35	9,80	887	14	7	2	2
5213	65	9,79	891	13	7	1	2
5214	61	10,01	920	14	7	2	1
5215	70	10,20	938	12	7	1	1
5216	68	10,39	952	12	7	1	2
5217	70	10,46	959	12	7	1	1
5218	66	8,81	787	13	6	1	1
5219	73	9,77	886	12	7	1	2
5220	77	10,66	985	11	7	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5221	80	10,62	979	12	7	1	1
5222	37	10,21	954	12	6	1	2
5223	47	9,97	924	12	7	1	1
5224	63	9,97	920	11	6	2	2
5225	52	9,54	879	12	6	1	1
5226	82	13,29	1249	14	5	1	1
5227	65	12,53	1167	10	5	1	1
5228	59	12,23	1147	9	5	1	2
5229	55	11,20	1051	10	5	1	1
5230	50	11,96	1111	12	5	2	1
5231	61	12,00	1120	14	5	1	1
5232	60	12,15	1125	14	5	2	2
5233	67	12,19	1128	14	5	1	1
5234	77	12,86	1200	14	5	2	2
5235	62	10,88	1004	11	7	2	1
5236	56	10,98	1017	14	7	2	1
5237	79	11,07	1021	15	7	2	1
5238	61	11,27	1040	12	7	1	1
5239	75	11,74	1079	12	7	1	2
5240	76	12,13	1116	13	7	2	2
5241	67	12,47	1153	14	7	2	1
5242	57	12,62	1166	14	8	2	1
5243	73	12,76	1203	14	7	1	2
5244	68	12,93	1206	15	7	2	2
5245	68	12,99	1208	15	7	2	2
5246	58	12,38	1136	17	6	2	1
5247	83	12,09	1130	12	6	1	2
5248	76	12,15	1134	13	6	2	2
5249	85	12,40	1153	17	7	1	1
5250	70	11,87	1104	12	6	2	2
5251	67	11,87	1104	12	6	2	2
5252	67	12,01	1105	15	7	2	2
5253	74	12,08	1117	16	6	1	2
5254	72	12,58	1165	17	6	1	2
5255	97	13,34	1139	16	6	1	2
5256	80	10,91	1005	15	7	1	2
5257	65	9,81	903	13	6	2	2
5258	64	8,49	776	12	5	1	1
5259	63	8,12	732	11	5	2	2
5260	66	5,47	479	10	5	1	2
5261	4	5,66	494	10	5	2	1
5262	6	5,03	452	6	4	1	1
5263	8	5,03	452	6	4	2	1
5264	8	4,15	354	6	3	1	1
5265	9	4,95	443	6	4	0	2
5266	17	5,64	499	7	4	1	1
5267	14	5,72	494	7	4	2	2
5268	13	5,70	504	7	4	1	1
5269	6	6,00	530	8	5	2	2
5270	19	7,29	654	9	5	1	1
5271	30	8,67	787	11	4	2	2
5272	62	8,53	774	9	5	2	2
5273	33	7,15	645	6	4	2	1
5274	29	6,81	603	7	4	2	1
5275	20	5,35	465	6	5	2	1
5276	21	8,53	774	9	5	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5277	27	7,15	645	6	4	2	1
5278	13	6,81	603	7	4	2	2
5279	22	5,35	465	6	5	2	1
5280	24	6,01	527	6	5	2	2
5281	32	5,92	511	8	5	2	2
5282	60	5,42	466	6	4	2	3
5283	63	5,23	453	6	4	2	1
5284	2	3,77	314	4	3	2	2
5285	45	2,08	150	3	2	2	1
5286	67	2,81	236	3	2	1	2
5287	65	4,19	391	4	3	0	1
5288	58	7,74	714	7	4	2	2
5289	53	9,45	876	11	6	0	1
5290	66	10,59	990	11	5	1	1
5291	100	12,41	1165	10	5	2	2
5292	67	13,61	1276	11	6	2	1
5293	49	14,26	1338	10	6	2	1
5294	58	13,72	1293	9	6	1	2
5295	85	13,88	1314	12	6	2	2
5296	57	14,08	1317	13	7	2	1
5297	54	14,26	1337	12	6	2	1
5298	62	14,38	1362	11	6	1	1
5299	46	14,64	1385	12	7	2	1
5300	42	14,91	1416	11	6	1	1
5301	70	15,66	1485	12	7	2	1
5302	78	16,85	1583	15	7	1	1
5303	86	15,58	1456	15	8	1	1
5304	72	13,52	1265	13	9	1	2
5305	75	17,51	1651	15	8	2	2
5306	54	19,22	1820	19	7	2	2
5307	69	19,61	1853	20	8	1	1
5308	85	19,26	1827	16	8	1	2
5309	85	19,03	1811	14	7	1	1
5310	62	18,67	1767	16	8	2	2
5311	67	18,34	1734	15	7	2	2
5312	77	17,76	1720	15	7	2	1
5313	78	17,76	1691	15	7	1	2
5314	44	16,88	1606	14	7	1	1
5315	79	16,29	1548	14	7	1	1
5316	68	16,12	1528	13	6	2	1
5317	72	16,05	1517	15	6	2	1
5318	66	16,07	1518	16	6	1	2
5319	85	16,49	1575	12	6	1	2
5320	68	16,44	1569	12	6	1	1
5321	86	16,91	1607	12	6	1	1
5322	74	17,20	1631	13	6	1	2
5323	61	15,46	1459	14	7	1	1
5324	65	16,11	1518	17	7	0	3
5325	69	18,64	1780	16	7	1	1
5326	42	18,92	1804	16	7	2	1
5327	56	20,06	1919	17	8	2	1
5328	52	20,41	1942	16	7	2	1
5329	51	18,34	1744	14	7	2	1
5330	63	14,28	1353	12	6	1	1
5331	71	11,70	1103	11	5	1	1
5332	97	12,90	1226	12	5	0	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5333	62	17,41	1653	16	7	0	1
5334	82	17,77	1687	15	7	1	1
5335	80	18,50	1757	15	8	2	1
5336	52	17,57	1666	17	9	2	1
5337	58	18,91	1800	19	9	2	2
5338	87	18,25	1734	16	9	1	2
5339	56	16,27	1548	13	7	1	1
5340	51	16,27	1548	13	7	1	1
5341	52	16,08	1528	13	6	2	1
5342	62	16,05	1517	15	6	2	1
5343	75	16,06	1518	15	6	1	2
5344	57	16,46	1575	12	6	1	1
5345	60	16,40	1569	12	6	1	1
5346	45	15,80	1481	15	8	1	2
5347	53	20,90	1972	18	10	2	2
5348	56	22,49	2053	18	10	2	1
5349	50	24,53	2338	21	11	2	1
5350	66	25,54	2440	22	11	2	2
5351	1	7,27	651	7	7	2	1
5352	56	8,51	783	9	4	2	1
5353	70	9,89	914	9	5	1	1
5354	79	10,93	1021	8	6	1	1
5355	90	10,93	1021	8	6	1	1
5356	70	10,26	954	11	6	2	1
5357	80	11,02	1032	12	6	2	1
5358	87	11,02	1032	12	6	2	1
5359	79	13,79	1304	11	5	1	1
5360	87	13,68	1292	11	5	1	1
5361	86	13,79	1301	11	6	1	1
5362	91	13,79	1301	11	6	1	1
5363	87	14,01	1318	11	5	1	1
5364	79	13,72	1301	11	5	1	1
5365	73	13,55	1282	10	5	1	1
5366	78	13,21	1243	9	6	1	1
5367	75	13,25	1253	8	6	1	1
5368	90	12,59	1167	11	5	2	1
5369	83	12,73	1197	9	5	2	1
5370	53	12,63	1178	10	6	1	1
5371	83	12,63	1178	10	6	1	1
5372	87	12,59	1183	9	5	1	1
5373	79	12,59	1183	9	5	1	1
5374	90	12,38	1159	9	5	2	1
5375	87	12,02	1131	9	5	1	1
5376	87	11,88	1117	9	5	1	1
5377	87	11,35	1047	13	6	2	1
5378	86	11,41	1057	12	5	2	1
5379	90	11,71	1089	12	4	2	2
5380	82	11,82	1088	13	3	2	3
5381	57	11,80	1091	11	4	2	2
5382	71	11,91	1094	9	5	2	1
5383	69	11,70	1091	8	4	2	1
5384	96	11,71	1101	10	4	2	1
5385	79	12,09	1124	14	5	2	1
5386	89	12,09	1124	14	5	2	1
5387	68	12,02	1125	12	5	2	1
5388	105	12,72	1184	10	6	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5389	81	12,87	1199	10	6	2	1
5390	97	12,80	1192	10	6	2	1
5391	70	12,47	1161	10	5	2	1
5392	103	12,27	1145	10	5	1	1
5393	100	12,21	1144	9	5	1	1
5394	90	12,87	1221	9	5	1	1
5395	96	12,87	1221	9	5	1	1
5396	80	13,11	1238	9	6	1	1
5397	38	13,26	1255	10	6	1	1
5398	93	12,28	1149	10	6	2	2
5399	88	10,16	937	10	6	2	2
5400	62	17,59	1679	12	6	1	2
5401	89	17,86	1702	12	6	1	2
5402	58	18,32	1747	13	6	1	2
5403	71	14,43	1372	11	5	1	2
5404	108	13,18	1247	11	5	1	2
5405	103	11,17	1038	12	4	0	2
5406	98	13,32	1253	13	5	0	1
5407	94	15,48	1468	14	5	1	1
5408	121	15,91	1512	13	5	1	1
5409	112	17,23	1643	10	6	2	1
5410	112	17,23	1643	10	6	2	1
5411	97	17,62	1681	11	6	2	1
5412	79	17,75	1694	11	6	2	1
5413	82	18,34	1746	15	6	2	1
5414	82	15,70	1481	15	6	1	1
5415	74	12,68	1182	13	6	1	1
5416	67	13,25	1253	8	6	1	1
5417	89	12,59	1167	11	5	2	1
5418	99	12,73	1197	9	5	2	1
5419	99	12,63	1178	10	6	1	1
5420	124	12,63	1178	10	6	1	1
5421	106	12,59	1183	9	5	1	2
5422	106	12,59	1183	9	5	1	2
5423	111	12,38	1159	9	5	2	2
5424	103	14,38	1355	11	6	1	2
5425	96	14,46	1379	10	6	2	2
5426	109	14,46	1379	10	6	2	1
5427	115	14,42	1365	12	7	2	1
5428	96	14,38	1355	11	6	1	1
5429	106	14,38	1355	11	6	1	2
5430	118	14,46	1379	10	6	2	1
5431	159	14,46	1379	10	6	2	2
5432	113	14,42	1365	12	7	2	2
5433	136	14,42	1365	12	7	2	2
5434	163	14,72	1397	12	6	1	1
5435	106	14,83	1408	12	6	1	1
5436	141	17,73	1689	14	7	2	1
5437	118	17,73	1689	14	7	2	1
5438	91	20,66	1978	17	7	0	2
5439	113	20,66	1978	17	7	0	2
5440	110	20,85	2002	15	7	2	2
5441	143	20,85	2002	15	7	2	2
5442	118	15,80	1501	16	8	2	2
5443	136	15,80	1501	16	8	2	2
5444	102	18,93	1802	14	6	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5445	79	18,99	1794	15	7	1	2
5446	103	18,99	1794	15	7	1	2
5447	80	19,70	1867	19	8	1	2
5448	100	19,88	1885	20	8	1	2
5449	136	21,40	2041	17	8	1	1
5450	89	21,78	2079	16	8	1	1
5451	120	23,26	2213	17	7	3	1
5452	130	23,70	2261	17	7	2	1
5453	112	25,02	2405	17	7	1	1
5454	125	25,02	2405	17	7	1	1
5455	117	26,45	2549	17	8	2	1
5456	111	26,81	2585	18	8	2	1
5457	123	27,23	2626	17	9	2	1
5458	129	27,49	2652	18	9	1	1
5459	116	27,72	2675	20	8	1	1
5460	114	27,84	2687	22	8	1	1
5461	115	26,96	2601	18	8	1	1
5462	113	26,52	2558	16	8	1	1
5463	123	23,36	2249	14	7	1	1
5464	130	23,36	2249	14	7	1	1
5465	115	22,85	2196	15	6	1	1
5466	127	21,32	2038	18	6	2	1
5467	106	20,86	1994	17	6	2	1
5468	96	19,40	1854	14	6	1	2
5469	114	19,06	1826	16	7	1	2
5470	104	18,50	1770	16	7	1	2
5471	109	16,29	1548	16	6	1	2
5472	109	15,73	1493	16	6	1	2
5473	111	17,83	1698	15	7	1	2
5474	103	18,36	1750	14	7	1	2
5475	98	18,42	1753	14	7	1	2
5476	80	18,61	1765	13	5	2	2
5477	87	18,33	1745	12	6	1	2
5478	93	18,06	1726	12	6	1	2
5479	104	18,44	1759	12	6	1	2
5480	89	18,82	1793	13	6	2	1
5481	127	18,82	1795	13	6	2	1
5482	108	18,81	1802	14	6	1	1
5483	102	18,81	1802	14	6	1	1
5484	92	19,01	1821	15	6	1	1
5485	87	19,41	1860	15	6	1	1
5486	113	19,36	1854	14	6	2	1
5487	100	19,32	1849	14	6	2	1
5488	117	18,67	1784	14	6	2	1
5489	115	17,68	1686	13	7	1	1
5490	94	17,92	1708	13	7	1	1
5491	84	18,90	1795	14	7	1	1
5492	85	19,92	1888	15	8	1	1
5493	104	20,43	1934	15	8	1	1
5494	95	20,43	1934	15	8	1	1
5495	84	19,02	1811	15	7	2	1
5496	94	18,82	1793	14	7	2	1
5497	94	18,03	1721	12	7	1	1
5498	71	16,79	1600	12	6	2	1
5499	100	16,44	1566	12	6	2	1
PALEGREDA Fm.							

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5500	95	17,31	1649	13	6	2	1
5501	49	19,66	1879	15	7	2	2
5502	101	20,56	1975	16	7	2	1
5503	87	19,83	1897	16	7	2	2
5504	110	16,41	1544	13	6	1	4
5505	98	11,55	1077	9	4	1	1
5506	96	11,34	1054	9	5	1	1
5507	99	10,68	984	9	5	2	1
5508	98	9,43	865	8	5	2	1
5509	83	4,99	446	4	2	2	1
5510	91	3,00	257	3	2	2	1
5511	92	2,71	223	3	2	2	1
5512	63	1,83	123	2	2	2	1
5513	99	1,48	100	2	2	2	1
5514	97	1,13	76	1	2	2	1
5515	79	1,69	127	2	2	2	1
5516	90	3,90	334	5	2	2	1
5517	82	7,96	727	10	3	1	1
5518	86	7,64	692	9	3	1	1
5519	88	6,96	622	8	3	1	1
5520	85	6,96	622	8	3	1	1
5521	85	11,54	1077	9	4	1	1
5522	94	11,31	1054	9	4	1	1
5523	95	10,88	1004	11	7	2	1
5524	104	10,98	1017	14	7	2	1
5525	96	11,07	1021	15	7	2	1
5526	86	11,27	1040	12	7	1	1
5527	81	11,74	1079	12	7	1	1
5528	86	12,13	1116	13	7	2	1
5529	96	12,47	1153	14	7	2	1
5530	108	12,62	1166	14	8	2	1
5531	95	12,76	1203	14	7	1	1
5532	78	6,08	550	7	3	1	1
5533	91	6,05	547	7	3	1	1
5534	88	6,00	536	8	3	2	2
5535	84	6,00	536	8	3	2	2
5536	99	5,77	517	7	2	2	1
5537	83	5,86	510	7	2	2	2
5538	88	4,04	331	8	3	1	1
5539	83	4,04	331	8	3	1	1
5540	89	4,69	409	7	5	1	1
5541	100	6,12	536	7	5	2	1
5542	1	5,03	452	6	4	1	1
5543	129	5,03	452	6	4	1	1
5544	87	4,15	354	6	3	1	1
5545	127	4,95	443	6	4	0	1
5546	145	5,64	499	7	4	1	1
5547	146	5,72	494	7	4	2	1
5548	133	5,70	504	7	4	1	1
5549	127	6,00	530	8	5	1	1
5550	101	7,30	655	9	5	1	1
5551	130	8,62	787	8	4	2	1
5552	114	8,49	770	9	5	2	1
5553	123	7,15	645	6	4	2	1
5554	118	6,81	603	7	4	2	1
5555	146	6,80	602	7	4	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5556	120	8,53	774	9	5	2	1
5557	110	9,88	900	13	6	2	1
5558	112	11,41	1057	12	5	2	1
5559	137	11,71	1089	12	4	2	1
5560	135	11,82	1088	13	3	2	1
5561	127	11,80	1091	11	4	2	2
5562	128	11,91	1094	9	5	2	2
5563	135	11,70	1091	8	4	2	2
5564	140	11,71	1101	10	4	2	2
5565	118	12,09	1124	14	5	2	2
5566	131	12,09	1124	14	5	2	1
5567	127	12,66	1187	15	5	1	1
5568	127	13,85	1312	17	5	0	1
5569	136	13,85	1312	17	5	0	1
5570	110	13,98	1318	14	5	2	1
5571	95	13,98	1320	13	5	2	1
5572	118	14,82	1394	16	5	2	1
5573	106	15,57	1469	18	5	1	1
5574	42	15,57	1469	18	5	1	1
5575	87	15,51	1462	18	6	1	1
5576	122	15,25	1435	18	6	1	1
5577	122	15,18	1428	18	6	1	1
5578	111	16,03	1513	18	6	1	1
5579	141	16,62	1570	17	6	2	1
5580	131	16,62	1570	17	6	2	1
5581	138	16,62	1570	17	6	2	1
5582	154	17,59	1669	20	8	1	1
5583	143	17,59	1669	20	8	1	1
5584	94	16,15	1531	16	7	1	1
5585	110	15,65	1485	15	6	1	2
5586	111	15,65	1485	15	6	1	2
5587	105	10,55	988	9	5	1	1
5588	79	10,55	988	9	5	1	1
5589	65	9,56	889	11	4	2	1
5590	108	9,56	889	11	4	2	1
5591	117	11,43	1064	12	6	1	1
5592	112	12,23	1142	13	6	1	2
5593	117	12,37	1163	13	5	1	2
5594	126	12,53	1181	12	5	1	2
5595	118	13,16	1236	12	5	2	2
5596	102	13,16	1236	12	5	2	2
5597	107	13,41	1270	13	5	0	1
5598	124	13,41	1270	13	5	0	1
5599	116	12,15	1137	12	5	0	2
5600	131	11,24	1045	11	5	1	2
5601	142	11,63	1086	12	5	2	1
5602	172	12,63	1178	10	6	1	2
5603	179	12,63	1178	10	6	1	1
5604	120	12,59	1183	9	5	1	1
5605	145	12,59	1183	9	5	1	1
5606	66	12,38	1159	9	5	2	1
5607	132	12,02	1131	9	5	1	1
5608	116	11,88	1117	9	5	1	1
5609	134	11,35	1047	13	6	2	1
5610	91	11,41	1057	12	5	2	1
5611	120	11,71	1089	12	4	2	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5612	111	11,82	1088	13	3	2	1
5613	144	11,80	1091	11	4	2	1
5614	149	11,82	1094	9	5	2	1
5615	185	11,70	1091	8	4	2	1
5616	117	11,71	1101	10	4	2	1
5617	112	12,09	1124	14	5	2	1
5618	156	12,09	1124	14	5	2	1
5619	119	13,09	1226	15	5	1	1
5620	78	13,09	1226	15	5	1	1
5621	144	13,83	1301	14	6	1	1
5622	136	13,83	1301	14	6	1	1
5623	232	14,27	1325	15	6	2	1
5624	143	14,27	1325	15	6	2	1
5625	181	14,27	1325	15	6	2	1
5626	191	14,47	1361	15	5	2	1
5627	157	14,47	1361	15	5	2	2
5628	139	15,46	1458	15	7	1	1
5629	129	15,46	1458	15	7	1	1
5630	135	15,46	1458	15	7	1	1
5631	93	16,50	1546	17	7	1	2
5632	118	16,50	1546	17	7	1	2
5633	114	16,61	1567	17	7	2	2
5634	125	16,79	1581	17	7	2	2
5635	117	17,05	1596	18	7	2	3
5636	91	17,05	1596	18	7	2	3
5637	69	12,82	1191	14	6	1	2
5638	104	11,45	1059	13	5	1	1
5639	94	11,56	1071	13	5	2	2
5640	121	11,21	1042	13	6	2	1
5641	98	10,58	984	12	6	1	1
5642	60	10,38	955	10	5	2	2
5643	116	10,05	927	10	5	1	2
5644	108	9,56	885	11	4	1	2
5645	125	9,56	883	10	4	1	2
5646	122	9,56	880	10	4	1	1
5647	113	9,56	880	10	4	1	1
5648	102	9,57	876	9	5	3	2
5649	102	9,55	877	10	4	2	2
5650	76	9,59	882	11	4	1	2
5651	85	9,71	890	12	5	2	2
5652	79	9,82	891	11	5	2	3
5653	86	9,82	899	11	5	1	2
5654	130	9,64	887	10	5	1	2
5655	85	9,46	868	10	6	2	2
5656	71	7,80	707	12	5	1	3
5657	70	8,28	755	12	5	1	2
5658	67	9,24	850	12	5	1	2
5659	62	9,08	819	11	5	1	2
5660	65	9,08	824	11	4	1	2
5661	13	9,05	822	12	5	1	3
5662	93	9,27	856	11	6	1	2
5663	79	9,43	879	10	5	1	2
5664	81	9,55	886	11	6	1	2
5665	66	9,91	904	11	6	2	2
5666	69	10,32	946	12	6	2	2
5667	82	11,05	1021	14	6	2	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5668	75	11,43	1068	13	5	1	2
5669	73	11,79	1102	13	6	1	2
5670	69	13,09	1228	14	6	1	2
5671	79	13,67	1286	15	6	2	2
5672	76	13,64	1281	15	6	1	2
5673	68	13,63	1278	15	6	1	2
5674	43	13,29	1257	15	6	0	1
5675	126	13,18	1250	15	6	0	1
5676	147	11,51	1051	16	5	2	2
5677	104	11,52	1052	16	5	2	2
5678	149	12,59	1183	9	5	1	2
5679	119	12,59	1183	9	5	1	2
5680	141	12,38	1159	9	5	2	2
5681	115	12,02	1131	9	5	1	2
5682	129	11,89	1118	9	5	1	2
5683	112	11,33	1045	13	6	2	2
5684	128	11,41	1057	12	5	2	2
5685	117	11,71	1089	12	4	2	2
5686	111	11,82	1088	13	3	2	3
5687	99	11,80	1091	11	4	2	2
5688	121	11,82	1094	9	5	2	2
5689	123	11,70	1091	8	4	2	2
5690	129	11,71	1101	10	4	2	2
5691	150	12,09	1124	14	5	2	2
5692	133	12,09	1124	14	5	2	2
5693	132	13,09	1226	15	5	1	3
5694	113	13,09	1226	15	5	1	3
5695	112	13,83	1301	14	6	1	2
5696	74	13,83	1301	14	6	1	2
5697	111	14,27	1325	15	6	2	3
5698	98	14,27	1325	15	6	2	3
5699	136	13,46	1250	16	5	2	2
5700	120	10,95	1001	15	5	2	2
5701	136	11,04	1019	14	5	1	2
5702	110	11,04	1019	14	5	1	2
5703	107	11,05	1017	15	6	1	2
5704	96	11,05	1017	15	6	1	2
5705	103	11,28	1030	15	5	2	2
5706	104	11,24	1053	16	5	1	1
5707	117	11,41	1064	17	5	1	1
5708	102	11,69	1085	17	6	1	1
5709	109	11,69	1085	17	6	1	1
5710	126	11,05	1018	16	6	1	2
5711	165	11,05	1018	16	6	1	2
5712	170	11,05	1018	16	6	1	2
5713	103	10,88	994	18	6	1	2
5714	146	10,79	991	16	6	1	2
5715	178	10,64	987	15	6	1	2
5716	88	10,79	992	16	6	1	2
5717	114	11,02	1001	17	6	1	3
5718	174	11,08	1008	17	6	1	2
5719	136	11,25	1030	18	7	1	1
5720	128	10,62	973	16	6	1	1
5721	148	9,98	917	15	5	2	2
5722	127	9,98	917	15	5	2	2
5723	72	10,43	959	17	5	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5724	78	10,83	993	17	6	1	2
5725	87	11,87	1092	18	6	1	2
5726	74	13,67	1272	21	7	1	2
5727	115	14,93	1391	19	9	2	2
5728	119	14,93	1391	19	9	2	2
5729	153	16,27	1518	22	8	2	1
5730	104	14,11	1311	19	8	2	1
5731	62	7,56	682	11	5	1	2
5732	172	7,37	665	12	4	1	1
5733	107	7,27	657	12	4	1	1
5734	98	7,55	683	13	5	1	1
5735	146	8,03	727	13	6	1	2
5736	202	8,42	763	12	6	2	2
5737	107	8,42	763	12	6	2	2
5738	92	8,50	776	13	6	1	2
5739	106	8,58	789	14	5	1	2
5740	102	9,27	850	16	5	1	2
5741	64	9,27	850	16	5	2	2
5742	47	9,99	909	16	6	2	1
5743	73	10,23	929	16	7	2	1
5744	68	10,17	929	17	6	2	2
5745	57	10,18	930	17	6	2	2
5746	82	10,22	933	16	5	2	1
5747	124	10,18	929	16	6	2	1
5748	99	10,05	914	15	7	2	1
5749	125	10,05	914	15	7	2	1
5750	116	9,94	904	15	7	1	1
5751	91	9,90	904	16	7	1	1
5752	111	10,06	924	16	7	1	1
5753	108	10,06	924	16	7	2	1
5754	103	10,06	924	16	7	2	1
5755	138	9,99	918	16	7	2	1
5756	128	9,79	899	17	6	2	2
5757	151	9,79	899	17	6	2	2
5758	116	9,52	859	17	6	1	2
5759	122	9,52	859	17	6	1	2
5760	127	9,52	859	17	6	1	2
5761	125	7,92	692	17	7	2	2
5762	120	7,39	636	18	7	3	2
5763	121	10,30	919	20	7	2	2
5764	147	11,76	1061	21	7	2	2
5765	136	11,76	1061	21	7	2	2
5766	75	11,82	1067	21	7	2	2
5767	68	12,05	1094	20	8	2	1
5768	64	10,94	1013	15	8	2	1
5769	92	10,94	1013	15	8	2	1
5770	167	11,02	998	18	8	1	1
5771	156	11,14	1010	18	8	1	1
5772	123	11,68	1060	18	8	2	2
5773	136	11,82	1072	19	8	2	2
5774	137	11,30	1033	19	8	1	2
5775	89	11,13	1014	20	8	1	3
5776	121	10,86	991	20	8	1	2
5777	152	10,66	976	20	8	1	2
5778	164	10,66	976	20	8	1	2
5779	146	10,66	976	20	8	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5780	154	9,70	883	17	7	1	2
5781	150	12,59	1183	9	5	1	2
5782	142	12,59	1183	9	5	1	2
5783	187	12,38	1159	9	5	2	2
5784	158	12,02	1131	9	5	1	2
5785	110	11,88	1117	9	5	1	2
5786	124	11,35	1047	13	6	2	2
5787	125	11,41	1057	12	5	2	2
5788	92	11,71	1089	12	4	2	2
5789	75	11,82	1088	13	3	2	3
5790	117	11,80	1091	11	4	2	2
5791	131	11,82	1094	9	5	2	2
5792	74	11,70	1091	8	4	2	2
5793	144	11,71	1101	10	4	2	2
5794	136	12,09	1124	14	5	2	2
5795	103	12,09	1124	14	5	2	2
5796	116	13,09	1226	15	5	1	3
5797	84	13,09	1226	15	5	1	3
5798	80	13,83	1301	14	6	1	2
5799	74	11,48	1044	14	9	1	1
5800	97	11,48	1044	14	9	1	1
5801	158	12,68	1164	19	9	2	2
5802	114	12,68	1164	19	9	2	2
5803	112	13,97	1282	20	10	3	1
5804	123	13,97	1282	20	10	3	1
5805	99	13,85	1292	20	9	2	1
5806	137	13,85	1292	20	9	2	1
5807	137	14,67	1368	20	10	1	1
5808	145	14,76	1371	21	11	1	2
5809	104	14,76	1371	21	11	1	2
MOGOLLON Fm.							
5810	134	14,76	1371	21	11	1	2
5811	124	14,76	1371	21	11	1	2
5812	108	12,43	1131	23	11	1	2
5813	49	13,74	1272	21	10	1	3
5814	68	13,31	1229	21	9	1	1
5815	99	12,85	1169	18	11	1	1
5816	95	12,05	1113	18	9	1	1
5817	117	12,05	1113	18	9	1	1
5818	98	11,59	1066	17	8	1	2
5819	88	11,12	1019	17	8	2	2
5820	55	10,81	996	16	7	2	2
5821	64	10,88	985	18	8	3	1
5822	99	10,54	942	17	7	1	2
5823	72	10,54	942	17	7	1	2
5824	27	10,29	939	15	9	2	1
5825	31	11,16	1016	17	9	2	2
5826	1	11,69	1062	19	9	2	2
5827	59	11,76	1065	21	9	2	2
5828	63	11,84	1068	24	9	2	2
5829	41	11,27	1015	21	9	1	2
5830	80	10,73	958	21	9	2	1
5831	77	10,12	915	19	8	1	1
5832	77	9,76	874	19	8	1	2
5833	70	9,58	856	21	8	1	2
5834	66	9,28	824	20	8	1	2

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
5835	61	8,40	755	17	8	1	1
5836	31	9,17	829	16	8	1	2
5837	36	8,82	801	15	8	2	2
5838	43	9,00	804	14	9	1	2
5839	53	9,06	815	16	8	1	1
5840	48	8,71	793	14	6	1	1
5841	47	8,20	732	13	7	2	1
5842	46	7,43	653	12	7	2	2
5843	34	6,95	617	14	6	2	1
5844	49	7,35	650	13	6	2	3
5845	27	7,55	675	13	6	2	1
5846	15	8,69	772	15	9	1	2
5847	23	9,74	882	17	9	1	1
5848	39	11,17	1008	20	9	2	1
5849	38	12,17	1101	22	10	1	1
5850	58	14,40	1304	30	12	1	2
5851	33	16,20	1485	36	12	1	3
5852	27	14,81	1363	31	11	1	1
5853	25	11,58	1044	25	9	2	2
5854	40	10,55	945	23	10	1	2
5855	41	10,13	898	22	10	2	1
5856	42	9,35	830	21	8	1	1
5857	42	8,31	746	17	8	1	1
5858	35	7,65	676	15	8	2	2
5859	43	7,55	661	15	8	2	2
5860	43	7,52	657	16	9	1	2
5861	24	7,44	655	17	9	1	2
5862	47	5,68	487	14	7	1	1
5863	29	6,87	603	15	7	1	2
5864	33	6,92	612	15	7	1	2
5865	38	6,69	587	17	7	1	1
5866	26	6,74	575	16	8	2	2
5867	28	5,28	450	11	6	1	2
5868	35	5,09	439	12	6	2	1
5869	4	6,48	537	18	9	2	2
5870	37	7,58	654	16	9	1	2
5871	41	7,76	678	16	9	1	1
5872	42	7,87	689	17	8	0	1
5873	53	8,06	710	16	8	1	1
5874	51	8,22	732	16	8	3	1
5875	97	8,64	768	14	8	2	2
5876	98	8,73	777	14	8	2	2
5877	100	8,47	754	16	9	2	2
5878	112	8,47	754	16	9	2	2
5879	81	8,57	759	16	9	2	2
5880	83	8,64	772	17	9	1	2
5881	80	8,82	790	17	9	1	2
5882	57	9,45	844	18	9	1	2
5883	96	9,45	844	18	9	1	2
5884	81	9,45	844	18	9	1	2
5885	110	9,45	844	18	9	1	2
5886	135	9,45	844	18	9	1	2
5887	88	9,45	844	18	9	1	2
5888	121	9,45	844	18	9	1	2
5889	37	9,45	844	18	9	1	2
5890	106	13,79	1252	25	12	1	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5891	129	11,70	1048	21	11	1	1
5892	109	9,46	841	17	9	1	2
5893	134	8,40	742	15	8	2	2
5894	102	7,69	679	14	7	1	2
5895	83	7,05	615	14	7	1	2
5896	138	6,85	599	14	7	1	1
5897	108	6,42	551	13	7	2	1
5898	99	6,26	541	12	7	2	1
5899	88	5,98	523	11	7	2	1
FROM 5900 TO 6954 NO SAMPLE GAS DUE CHROMATOGRAPH PROBLEMS							
6955	56	7,65	540	35	18	9	7
6956	69	7,38	530	24	19	9	7
6957	76	7,08	500	24	19	9	7
6958	68	7,15	495	24	19	10	9
6959	63	7,14	495	25	18	10	9
6960	70	6,98	485	24	18	10	8
6961	76	7,18	500	24	16	10	7
6962	94	7,16	501	25	18	10	8
6963	84	7,30	510	25	20	10	8
6964	48	7,44	520	25	20	11	8
6965	111	7,23	496	27	20	11	8
6966	82	7,21	495	26	20	9	8
6967	73	7,20	485	25	20	9	8
6968	95	7,04	484	25	20	9	8
6969	107	6,59	450	23	20	9	8
6970	63	6,42	450	24	16	8	7
6971	81	6,65	476	24	15	8	7
6972	55	6,78	485	26	15	8	7
6973	41	6,70	480	25	16	8	7
6974	40	6,68	475	24	18	8	7
6975	50	7,10	500	25	19	10	8
6976	50	7,11	510	25	20	8	7
6977	53	7,64	550	26	22	10	6
6978	35	7,72	574	26	20	7	6
6979	62	5,87	400	24	19	7	5
6980	89	5,81	395	23	19	7	5
6981	47	5,76	390	22	20	7	5
6982	84	7,15	495	24	19	10	9
6983	93	7,14	495	25	18	10	9
6984	78	6,98	485	24	18	10	8
6985	73	7,18	500	24	16	10	7
6986	128	7,16	501	25	18	10	8
6987	92	7,30	510	25	20	10	8
6988	96	7,44	520	25	20	11	8
6989	101	7,23	496	27	20	11	8
6990	135	7,21	495	26	20	9	8
6991	132	7,20	485	25	20	9	8
6992	82	7,04	484	25	20	9	8
6993	111	6,59	450	23	20	9	8
6994	135	6,42	450	24	16	8	7
6995	147	6,65	476	24	15	8	7
6996	138	6,78	485	26	15	8	7
6997	96	6,70	480	25	16	8	7
6998	151	6,68	475	24	18	8	7
6999	153	7,10	500	25	19	10	8

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7000	160	7,11	510	25	20	8	7
7001	150	7,64	550	26	22	10	6
7002	118	7,72	574	26	20	7	6
7003	118	5,87	400	24	19	7	5
7004	120	5,81	395	23	19	7	5
7005	56	5,76	390	22	20	7	5
7006	73	5,84	400	22	19	7	5
7007	46	5,43	355	22	18	8	4
7008	39	5,40	355	20	18	8	4
7009	54	5,42	360	20	17	8	4
7010	47	5,54	375	20	16	8	4
7011	25	5,62	395	21	16	5	4
7012	31	5,49	385	21	15	5	4
7013	27	5,59	395	21	15	5	4
7014	31	5,50	385	23	14	5	4
7015	34	5,48	390	23	14	5	4
7016	45	5,62	390	23	15	7	5
7017	51	5,61	385	23	15	7	6
7018	55	5,86	410	23	15	7	6
7019	57	5,68	395	21	15	7	6
7020	48	5,70	395	22	15	7	6
7021	61	5,60	385	22	15	7	6
7022	63	5,73	398	22	15	7	6
7023	65	5,81	398	22	15	8	7
7024	63	7,65	540	35	18	9	7
7025	27	7,38	530	24	19	9	7
7026	44	7,08	500	24	19	9	7
7027	57	7,15	495	24	19	10	9
7028	28	7,14	495	25	18	10	9
7029	41	6,98	485	24	18	10	8
7030	31	7,18	500	24	16	10	7
7031	47	7,16	501	25	18	10	8
7032	50	7,30	510	25	20	10	8
7033	58	7,44	520	25	20	11	8
7034	50	7,23	496	27	20	11	8
7035	57	7,21	495	26	20	9	8
7036	67	7,20	485	25	20	9	8
7037	50	7,09	484	25	20	9	9
7038	60	6,63	450	23	20	9	9
7039	66	6,50	450	24	16	8	9
7040	69	6,74	476	24	15	8	9
7041	68	6,86	485	26	15	8	9
7042	68	6,79	480	25	16	8	9
7043	69	6,77	475	24	18	8	9
7044	79	7,10	500	25	19	10	8
7045	76	7,06	510	25	20	8	6
7046	78	7,77	550	26	22	10	9
7047	68	7,81	574	26	20	7	8
7048	77	6,01	400	24	19	7	8
7049	58	5,94	395	23	19	7	8
7050	57	5,90	390	22	20	7	8
7051	52	7,65	540	35	18	9	7
7052	59	7,38	530	24	19	9	7
7053	63	7,08	500	24	19	9	7
7054	70	7,15	495	24	19	10	9
7055	65	7,14	495	25	18	10	9

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7056	67	6,98	485	24	18	10	8
7057	64	7,18	500	24	16	10	7
7058	64	7,16	501	25	18	10	8
7059	65	7,30	510	25	20	10	8
7060	69	7,44	520	25	20	11	8
7061	68	7,23	496	27	20	11	8
7062	67	7,21	495	26	20	9	8
7063	51	7,20	485	25	20	9	8
7064	56	7,04	484	25	20	9	8
7065	54	6,59	450	23	20	9	8
7066	57	6,42	450	24	16	8	7
7067	47	6,65	476	24	15	8	7
7068	53	6,78	485	26	15	8	7
7069	50	6,70	480	25	16	8	7
7070	55	6,68	475	24	18	8	7
7071	53	7,10	500	25	19	10	8
7072	51	7,11	510	25	20	8	7
7073	61	7,64	550	26	22	10	6
7074	46	7,72	574	26	20	7	6
7075	59	5,87	400	24	19	7	5
7076	59	5,81	395	23	19	7	5
7077	81	5,76	390	22	20	7	5
7078	64	7,15	495	24	19	10	9
7079	67	7,14	495	25	18	10	9
7080	72	6,98	485	24	18	10	8
7081	74	7,18	500	24	16	10	7
7082	81	7,16	501	25	18	10	8
7083	86	7,30	510	25	20	10	8
7084	73	7,44	520	25	20	11	8
7085	75	7,23	496	27	20	11	8
7086	46	7,21	495	26	20	9	8
7087	60	7,20	485	25	20	9	8
7088	57	7,04	484	25	20	9	8
7089	48	6,59	450	23	20	9	8
7090	54	6,42	450	24	16	8	7
7091	54	6,65	476	24	15	8	7
7092	61	6,78	485	26	15	8	7
7093	55	6,70	480	25	16	8	7
7094	65	6,68	475	24	18	8	7
7095	63	7,10	500	25	19	10	8
7096	56	7,11	510	25	20	8	7
7097	40	7,64	550	26	22	10	6
7098	35	7,72	574	26	20	7	6
7099	32	5,87	400	24	19	7	5
7100	40	5,81	395	23	19	7	5
7101	28	5,76	390	22	20	7	5
7102	18	5,84	400	22	19	7	5
7103	24	5,32	355	22	18	6	4
7104	20	5,29	355	20	18	6	4
7105	18	5,31	360	20	17	6	4
7106	21	5,51	375	20	16	7	4
7107	23	5,72	395	21	16	7	4
7108	26	5,60	385	21	15	7	4
7109	31	5,70	395	21	15	7	4
7110	32	5,11	345	22	15	5	4
7111	48	5,24	365	22	14	5	4

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7112	44	5,34	375	22	14	5	4
7113	45	5,59	400	22	14	5	4
7114	38	5,69	410	22	14	5	4
7115	35	5,59	400	22	14	5	4
7116	39	5,43	385	23	14	5	4
7117	43	5,48	390	23	14	5	4
7118	45	5,62	390	23	15	7	5
7119	40	5,61	385	23	15	7	6
7120	43	5,86	410	23	15	7	6
7121	37	5,68	395	21	15	7	6
7122	51	5,70	395	22	15	7	6
7123	48	5,60	385	22	15	7	6
7124	36	5,73	398	22	15	7	6
7125	34	5,81	398	22	15	8	7
7126	23	7,65	540	35	18	9	7
7127	65	7,38	530	24	19	9	7
7128	72	7,08	500	24	19	9	7
7129	74	7,15	495	24	19	10	9
7130	56	7,14	495	25	18	10	9
7131	67	6,98	485	24	18	10	8
7132	62	7,18	500	24	16	10	7
7133	71	7,16	501	25	18	10	8
7134	72	7,30	510	25	20	10	8
7135	73	7,44	520	25	20	11	8
7136	86	7,23	496	27	20	11	8
7137	90	7,21	495	26	20	9	8
7138	125	7,20	485	25	20	9	8
7139	165	7,09	484	25	20	9	9
7140	101	6,63	450	23	20	9	9
7141	147	6,50	450	24	16	8	9
7142	123	6,74	476	24	15	8	9
7143	85	6,86	485	26	15	8	9
7144	129	6,79	480	25	16	8	9
7145	140	6,77	475	24	18	8	9
7146	120	7,10	500	25	19	10	8
7147	139	7,06	510	25	20	8	6
7148	157	7,77	550	26	22	10	9
7149	108	7,81	574	26	20	7	8
7150	125	6,01	400	24	19	7	8
7151	106	5,94	395	23	19	7	8
7152	121	5,90	390	22	20	7	8
7153	102	7,65	540	35	18	9	7
7154	75	7,38	530	24	19	9	7
7155	101	7,08	500	24	19	9	7
7156	112	7,15	495	24	19	10	9
7157	93	7,14	495	25	18	10	9
7158	70	6,98	485	24	18	10	8
7159	104	7,18	500	24	16	10	7
7160	109	7,16	501	25	18	10	8
7161	91	7,30	510	25	20	10	8
7162	116	7,44	520	25	20	11	8
7163	100	7,23	496	27	20	11	8
7164	130	7,21	495	26	20	9	8
7165	89	7,20	485	25	20	9	8
7166	96	7,04	484	25	20	9	8
7167	121	6,59	450	23	20	9	8

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7168	121	6,42	450	24	16	8	7
7169	113	6,65	476	24	15	8	7
7170	121	6,78	485	26	15	8	7
7171	129	6,70	480	25	16	8	7
7172	131	6,68	475	24	18	8	7
7173	117	7,10	500	25	19	10	8
7174	100	7,11	510	25	20	8	7
7175	97	7,64	550	26	22	10	6
7176	123	7,72	574	26	20	7	6
7177	123	5,87	400	24	19	7	5
7178	123	5,81	395	23	19	7	5
7179	125	5,76	390	22	20	7	5
7180	125	5,84	400	22	19	7	5
7181	138	5,25	355	22	18	5	4
7182	73	5,22	355	20	18	5	4
7183	133	5,24	360	20	17	5	4
7184	124	5,36	375	20	16	5	4
7185	100	5,58	395	21	16	5	4
7186	132	5,45	385	21	15	5	4
7187	136	5,55	395	21	15	5	4
7188	136	5,07	345	22	15	5	4
7189	88	5,24	365	22	14	5	4
7190	75	5,34	375	22	14	5	4
7191	117	5,59	400	22	14	5	4
7192	100	5,69	410	22	14	5	4
7193	47	5,59	400	22	14	5	4
7194	46	5,46	385	23	14	5	4
7195	41	5,48	390	23	14	5	4
7196	42	5,62	390	23	15	7	5
7197	38	5,61	385	23	15	7	6
7198	46	5,86	410	23	15	7	6
7199	54	5,68	395	21	15	7	6
7200	39	5,70	395	22	15	7	6
7201	48	5,60	385	22	15	7	6
7202	50	5,73	398	22	15	7	6
7203	47	5,81	398	22	15	8	7
7204	46	7,65	540	35	18	9	7
7205	50	7,38	530	24	19	9	7
7206	43	7,08	500	24	19	9	7
7207	50	7,15	495	24	19	10	9
7208	46	7,14	495	25	18	10	9
7209	42	6,98	485	24	18	10	8
7210	53	7,18	500	24	16	10	7
7211	47	7,16	501	25	18	10	8
7212	45	7,30	510	25	20	10	8
7213	43	7,44	520	25	20	11	8
7214	49	7,23	496	27	20	11	8
7215	41	7,21	495	26	20	9	8
7216	48	7,20	485	25	20	9	8
7217	39	7,09	484	25	20	9	9
7218	46	6,63	450	23	20	9	9
7219	40	6,50	450	24	16	8	9
7220	35	6,74	476	24	15	8	9
7221	51	6,86	485	26	15	8	9
7222	47	6,79	480	25	16	8	9
7223	52	6,77	475	24	18	8	9

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7224	48	7,10	500	25	19	10	8
7225	47	7,06	510	25	20	8	6
7226	49	7,77	550	26	22	10	9
7227	53	7,81	574	26	20	7	8
7228	57	6,01	400	24	19	7	8
7229	55	5,94	395	23	19	7	8
7230	50	5,90	390	22	20	7	8
7231	52	5,97	400	22	19	7	8
7232	55	5,21	355	22	18	5	3
7233	53	5,17	355	20	18	5	3
7234	60	5,20	360	20	17	5	3
7235	53	5,32	375	20	16	5	3
7236	46	5,54	395	21	16	5	3
7237	52	5,41	385	21	15	5	3
7238	54	5,51	395	21	15	5	3
7239	51	5,03	345	22	15	5	3
7240	47	5,20	365	22	14	5	3
7241	49	5,30	375	22	14	5	3
7242	61	5,55	400	22	14	5	3
7243	53	5,61	410	22	14	5	2
7244	55	5,55	400	22	14	5	3
7245	56	5,42	385	23	14	5	3
7246	46	5,48	390	23	14	5	4
7247	52	5,62	390	23	15	7	5
7248	50	5,61	385	23	15	7	6
7249	54	5,86	410	23	15	7	6
7250	55	5,68	395	21	15	7	6
7251	53	5,70	395	22	15	7	6
7252	58	5,60	385	22	15	7	6
7253	50	5,73	398	22	15	7	6
7254	55	5,81	398	22	15	8	7
7255	49	5,69	385	25	15	8	6
7256	48	5,70	385	25	14	8	7
7257	51	6,91	408	27	18	9	7
7258	47	7,56	483	24	19	8	7
7259	47	7,53	483	25	19	8	7
7260	49	7,56	483	23	20	8	7
7261	49	7,20	487	24	15	8	7
7262	50	7,09	471	24	16	8	7
7263	45	6,43	401	25	17	8	7
7264	50	7,65	540	35	18	9	7
7265	56	7,38	530	24	19	9	7
7266	54	7,08	500	24	19	9	7
7267	50	7,15	495	24	19	10	9
7268	59	7,14	495	25	18	10	9
7269	66	6,98	485	24	18	10	8
7270	59	7,18	500	24	16	10	7
7271	58	7,16	501	25	18	10	8
7272	53	7,30	510	25	20	10	8
7273	61	7,44	520	25	20	11	8
7274	51	7,23	496	27	20	11	8
7275	67	7,21	495	26	20	9	8
7276	66	7,20	485	25	20	9	8
7277	61	7,04	484	25	20	9	8
7278	64	6,59	450	23	20	9	8
7279	54	6,42	450	24	16	8	7

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7280	57	6,65	476	24	15	8	7
7281	65	6,78	485	26	15	8	7
7282	67	6,70	480	25	16	8	7
7283	51	6,68	475	24	18	8	7
7284	43	7,10	500	25	19	10	8
7285	111	7,11	510	25	20	8	7
7286	42	7,64	550	26	22	10	6
7287	93	7,72	574	26	20	7	6
7288	111	5,87	400	24	19	7	5
7289	98	5,81	395	23	19	7	5
7290	88	5,76	390	22	20	7	5
7291	97	5,84	400	22	19	7	5
7292	89	5,25	355	22	18	5	4
7293	47	5,22	355	20	18	5	4
7294	49	5,24	360	20	17	5	4
7295	44	5,36	375	20	16	5	4
7296	45	5,58	395	21	16	5	4
7297	38	5,45	385	21	15	5	4
7298	52	5,55	395	21	15	5	4
7299	39	5,07	345	22	15	5	4
7300	49	5,24	365	22	14	5	4
7301	44	5,34	375	22	14	5	4
7302	37	5,59	400	22	14	5	4
7303	47	5,69	410	22	14	5	4
7304	35	5,59	400	22	14	5	4
7305	41	5,46	385	23	14	5	4
7306	43	5,48	390	23	14	5	4
7307	37	5,62	390	23	15	7	5
7308	45	5,61	385	23	15	7	6
7309	38	5,86	410	23	15	7	6
7310	35	5,68	395	21	15	7	6
7311	39	5,70	395	22	15	7	6
7312	39	5,60	385	22	15	7	6
7313	44	5,73	398	22	15	7	6
7314	33	5,81	398	22	15	8	7
7315	52	7,65	540	35	18	9	7
7316	39	7,38	530	24	19	9	7
7317	42	7,08	500	24	19	9	7
7318	42	7,15	495	24	19	10	9
7319	39	7,14	495	25	18	10	9
7320	39	6,98	485	24	18	10	8
7321	45	7,18	500	24	16	10	7
7322	40	7,16	501	25	18	10	8
7323	45	7,30	510	25	20	10	8
7324	49	7,44	520	25	20	11	8
7325	43	7,23	496	27	20	11	8
7326	46	7,21	495	26	20	9	8
7327	43	7,20	485	25	20	9	8
7328	42	7,09	484	25	20	9	9
7329	47	6,63	450	23	20	9	9
7330	46	6,50	450	24	16	8	9
7331	47	6,74	476	24	15	8	9
7332	53	6,86	485	26	15	8	9
7333	48	6,79	480	25	16	8	9
7334	42	6,77	475	24	18	8	9
7335	49	7,10	500	25	19	10	8

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7336	51	7,06	510	25	20	8	6
7337	39	7,77	550	26	22	10	9
7338	51	7,81	574	26	20	7	8
7339	51	6,01	400	24	19	7	8
7340	40	5,94	395	23	19	7	8
7341	54	5,90	390	22	20	7	8
7342	38	5,97	400	22	19	7	8
7343	48	5,21	355	22	18	5	3
7344	55	5,17	355	20	18	5	3
7345	46	5,20	360	20	17	5	3
7346	35	5,32	375	20	16	5	3
7347	48	5,54	395	21	16	5	3
7348	44	5,41	385	21	15	5	3
7349	40	5,51	395	21	15	5	3
7350	45	5,03	345	22	15	5	3
7351	39	5,20	365	22	14	5	3
7352	43	5,30	375	22	14	5	3
7353	41	5,55	400	22	14	5	3
7354	48	5,61	410	22	14	5	2
7355	41	5,55	400	22	14	5	3
7356	49	5,42	385	23	14	5	3
7357	52	5,48	390	23	14	5	4
7358	36	5,62	390	23	15	7	5
7359	58	5,61	385	23	15	7	6
7360	55	5,86	410	23	15	7	6
7361	49	5,68	395	21	15	7	6
7362	52	5,70	395	22	15	7	6
7363	57	5,60	385	22	15	7	6
7364	50	5,73	398	22	15	7	6
7365	52	5,81	398	22	15	8	7
7366	48	5,69	385	25	15	8	6
7367	50	5,70	385	25	14	8	7
7368	52	6,91	408	27	18	9	7
7369	45	7,56	483	24	19	8	7
7370	42	7,53	483	25	19	8	7
7371	41	7,56	483	23	20	8	7
7372	57	7,20	487	24	15	8	7
7373	41	7,09	471	24	16	8	7
7374	40	6,43	401	25	17	8	7
7375	58	8,62	624	24	16	8	7
7376	79	9,05	676	22	14	8	7
7377	82	8,32	596	25	13	9	8
7378	82	8,20	581	24	12	9	8
7379	44	8,08	565	23	14	9	8
7380	40	8,29	598	20	12	9	8
7381	38	8,62	612	26	15	9	8
7382	40	8,35	579	28	16	9	8
7383	41	11,81	540	36	29	37	8
7384	36	14,74	601	34	47	49	62
7385	45	13,83	629	32	21	40	58
7386	39	12,97	605	30	20	35	50
7387	43	14,43	612	25	24	36	62
7388	42	14,80	640	54	24	44	96
7389	39	9,03	388	35	22	33	33
7390	42	9,09	388	36	22	33	33
7391	40	7,26	271	36	22	14	33

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7392	38	7,98	295	50	28	17	32
7393	44	7,95	346	42	22	14	31
7394	42	7,19	338	39	17	10	29
7395	39	6,85	317	32	20	9	14
7396	39	7,04	319	33	20	14	15
7397	41	5,84	197	35	21	14	15
7398	43	6,33	268	34	20	14	15
7399	41	6,39	268	35	20	13	15
7400	42	6,40	255	33	29	10	14
7401	46	8,00	401	33	38	10	13
7402	43	7,88	388	47	35	10	11
7403	37	7,62	408	35	26	11	12
7404	48	7,75	408	26	26	12	14
7405	41	6,63	363	26	24	8	14
7406	48	7,99	474	40	24	8	14
7407	42	8,28	505	36	26	8	13
7408	48	8,67	527	40	25	8	14
7409	42	8,17	489	38	26	7	14
7410	40	5,69	229	42	25	7	15
7411	47	6,20	291	35	24	7	15
7412	40	7,18	439	26	14	7	15
7413	42	8,23	480	39	15	9	14
7414	45	9,19	537	43	25	9	14
7415	43	9,57	572	44	23	9	13
7416	47	8,13	440	33	26	9	13
7417	47	8,32	417	31	38	9	13
7418	40	8,23	431	37	30	11	15
7419	46	8,57	431	40	36	11	15
7420	40	7,15	344	36	18	12	16
7421	43	8,17	293	24	34	22	30
7422	45	7,86	239	51	21	26	30
7423	42	8,69	340	33	21	29	31
7424	35	9,00	350	34	22	29	31
7425	44	8,99	345	35	22	29	32
7426	40	9,03	360	34	22	29	32
7427	43	9,33	370	34	23	29	33
7428	50	9,36	375	35	23	29	33
7429	39	9,34	380	36	23	29	32
7430	43	9,39	390	36	24	29	32
7431	44	9,43	407	37	24	26	31
7432	50	9,43	407	37	24	26	30
7433	47	9,03	388	35	22	33	33
7434	51	9,09	388	36	22	33	33
7435	42	7,26	271	36	22	14	33
7436	50	7,98	295	50	28	17	32
7437	48	7,95	346	42	22	14	31
7438	43	7,19	338	39	17	10	29
7439	44	6,85	317	32	20	9	14
7440	48	7,04	319	33	20	14	15
7441	50	5,84	197	35	21	14	15
7442	49	6,33	268	34	20	14	15
7443	44	6,39	268	35	20	13	15
7444	37	6,40	255	33	29	10	14
7445	47	8,00	401	33	38	10	13
7446	43	7,88	388	47	35	10	11
7447	41	7,62	408	35	26	11	12

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7448	45	7,75	408	26	26	12	14
7449	44	8,10	412	41	27	11	15
7450	42	7,64	376	41	22	11	17
7451	43	6,82	313	47	21	12	15
7452	42	6,65	276	52	27	11	14
7453	37	7,28	353	49	25	9	15
7454	52	9,14	573	21	23	10	12
7455	50	7,61	429	29	22	10	13
7456	46	7,12	379	27	22	10	14
7457	44	7,59	359	26	23	9	27
7458	57	8,24	462	28	24	9	24
7459	50	9,67	580	30	25	8	21
7460	46	8,35	460	23	25	8	21
7461	68	8,13	475	24	24	9	12
7462	48	8,67	485	25	23	8	15
7463	37	9,16	475	26	22	9	22
7464	56	8,49	485	25	22	10	13
7465	56	8,53	490	25	22	11	15
7466	45	8,74	500	26	22	11	17
7467	51	8,58	495	34	22	11	17
7468	67	8,44	498	27	19	12	16
7469	58	8,28	485	25	19	10	17
7470	54	6,89	314	45	20	8	17
7471	53	7,32	371	33	20	9	18
7472	48	7,97	396	43	20	9	21
7473	50	7,24	345	21	20	10	20
7474	4	7,35	385	31	20	8	21
7475	15	7,31	386	31	20	9	20
7476	14	7,51	410	29	20	8	19
7477	14	7,84	450	28	20	9	17
7478	13	7,95	460	28	20	8	18
7479	7	6,96	369	27	21	9	17
7480	22	7,34	419	26	17	8	18
7481	27	6,54	319	27	16	9	21
7482	37	7,48	408	27	18	9	20
7483	44	8,13	483	24	19	8	20
7484	44	8,11	483	25	19	8	20
7485	27	8,09	483	23	20	8	19
7486	39	7,51	487	24	15	8	14
7487	40	7,31	471	24	16	8	12
7488	44	6,65	401	25	17	8	12
7489	41	8,79	624	24	16	8	11
7490	40	9,27	676	22	14	8	12
7491	35	8,63	596	25	13	9	15
7492	37	8,55	581	24	12	9	16
7493	33	8,47	565	23	14	9	17
7494	33	8,64	598	20	12	9	16
7495	36	8,97	612	26	15	9	16
7496	38	8,66	579	28	16	9	15
7497	45	9,86	691	30	18	9	14
7498	20	8,90	730	23	10	7	7
7499	14	7,84	605	25	11	7	7
7500	25	6,87	508	25	11	7	7
7501	27	8,01	620	26	11	7	7
7502	39	8,55	672	26	12	7	7
7503	39	8,82	672	41	12	7	7

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7504	45	7,76	568	40	13	6	7
7505	53	7,79	568	42	13	6	7
7506	15	8,51	597	61	15	7	7
7507	25	8,64	625	54	14	7	7
7508	95	8,76	639	50	16	7	7
7509	82	8,54	676	21	16	5	7
7510	79	6,32	451	21	17	5	7
7511	83	6,23	450	22	15	5	7
7512	97	5,62	373	29	15	5	7
7513	75	6,96	493	30	17	7	7
7514	87	7,03	496	28	17	9	7
7515	96	7,03	496	28	17	9	7
7516	71	5,89	389	28	17	6	8
7517	45	5,90	389	27	18	6	8
7518	48	5,76	377	27	17	6	8
7519	33	5,75	379	26	18	5	8
7520	34	5,24	376	26	12	3	4
7521	29	5,39	373	35	11	3	4
7522	27	5,05	343	33	11	3	4
7523	29	5,26	373	28	11	3	4
7524	29	5,29	360	37	11	3	4
7525	29	5,94	450	20	13	3	4
7526	42	9,28	750	41	10	3	4
7527	57	11,75	1000	39	12	3	4
7528	45	11,85	1010	38	11	3	5
7529	47	11,25	950	38	11	3	5
7530	43	10,77	900	39	11	3	5
7531	41	6,10	465	21	11	3	5
7532	32	6,09	461	23	11	3	5
7533	45	5,79	427	23	11	4	5
7534	47	5,89	450	16	11	4	5
7535	51	5,65	421	17	12	4	5
7536	56	5,37	393	17	12	4	5
7537	29	5,65	419	18	12	4	5
7538	75	5,57	411	18	12	4	5
7539	54	4,96	400	19	11	2	2
7540	39	5,58	435	19	12	4	5
7541	32	5,98	475	20	11	4	5
7542	59	6,08	483	20	12	4	5
7543	50	6,35	497	22	14	4	5
7544	48	5,78	440	23	10	4	5
7545	46	6,04	471	22	9	4	5
7546	47	6,43	487	25	14	4	6
7547	47	7,10	509	30	27	4	6
7548	48	7,61	530	38	33	4	6
7549	49	7,58	523	38	33	4	6
7550	54	7,24	505	38	27	4	6
7551	62	7,51	519	38	32	4	7
7552	49	10,31	783	39	36	5	7
7553	62	15,89	1356	35	33	5	7
7554	53	16,81	1409	36	32	5	7
7555	65	16,01	1326	38	32	5	7
7556	50	16,46	1368	38	33	5	7
7557	60	16,46	1363	39	33	5	7
7558	65	16,24	1335	38	33	7	7
7559	55	15,91	1336	40	19	7	7

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7560	55	16,26	1356	40	22	7	7
7561	50	23,77	2102	41	22	7	8
7562	54	22,99	2060	40	21	7	9
7563	55	19,82	1743	36	22	14	5
7564	48	16,77	1438	36	23	12	6
7565	62	16,95	1456	36	23	12	6
7566	51	17,48	1513	37	25	9	6
7567	55	17,05	1475	37	23	9	6
7568	59	23,89	2162	37	22	9	6
7569	55	23,89	2162	37	22	9	6
7570	56	7,65	540	35	18	9	7
7571	25	7,38	530	24	19	9	7
7572	38	7,08	500	24	19	9	7
7573	42	7,20	495	24	19	10	10
7574	45	7,19	495	25	18	10	10
7575	46	7,07	485	24	18	10	10
7576	43	7,31	500	24	16	10	10
7577	41	7,16	501	25	18	10	8
7578	29	7,30	510	25	20	10	8
7579	43	7,44	520	25	20	11	8
7580	42	7,23	496	27	20	11	8
7581	39	7,21	495	26	20	9	8
7582	34	7,20	485	25	20	9	8
7583	41	7,09	484	25	20	9	9
7584	41	6,63	450	23	20	9	9
7585	39	6,50	450	24	16	8	9
7586	37	6,74	476	24	15	8	9
7587	41	6,86	485	26	15	8	9
7588	36	6,79	480	25	16	8	9
7589	36	6,77	475	24	18	8	9
7590	37	7,27	500	25	19	10	12
7591	39	9,73	759	25	20	8	10
7592	43	10,14	787	26	22	10	9
7593	35	7,81	574	26	20	7	8
7594	41	6,01	400	24	19	7	8
7595	40	5,94	395	23	19	7	8
7596	41	5,90	390	22	20	7	8
7597	38	5,97	400	22	19	7	8
7598	20	5,43	355	22	18	5	8
7599	45	5,39	355	20	18	5	8
7600	33	5,42	360	20	17	5	8
7601	33	5,54	375	20	16	5	8
7602	33	5,76	395	21	16	5	8
7603	26	5,63	385	21	15	5	8
7604	38	5,73	395	21	15	5	8
7605	42	5,25	345	22	15	5	8
7606	42	5,42	365	22	14	5	8
7607	30	5,52	375	22	14	5	8
7608	38	5,77	400	22	14	5	8
7609	39	5,87	410	22	14	5	8
7610	36	5,81	400	22	14	5	9
7611	31	5,68	385	23	14	5	9
7612	42	5,70	390	23	14	5	9
7613	40	5,80	390	23	15	7	9
7614	36	5,75	385	23	15	7	9
7615	43	6,00	410	23	15	7	9

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7616	33	5,81	395	21	15	7	9
7617	32	5,83	395	22	15	7	9
7618	34	5,73	385	22	15	7	9
7619	39	5,86	398	22	15	7	9
7620	37	5,89	398	22	15	8	9
7621	33	5,82	385	25	15	8	9
7622	43	5,79	385	25	14	8	9
7623	47	5,65	375	25	14	8	9
7624	38	5,80	385	25	14	8	9
7625	37	5,75	375	25	16	8	9
7626	41	5,77	375	26	16	8	9
7627	39	5,87	385	26	16	8	9
7628	43	5,82	380	26	16	8	9
7629	43	5,82	380	26	16	8	9
7630	34	5,59	375	18	16	8	9
7631	36	5,71	376	21	15	9	10
7632	42	5,87	385	25	15	9	10
7633	46	5,77	375	25	15	9	10
7634	39	5,91	385	25	15	9	10
7635	36	5,82	375	26	15	9	10
7636	37	5,91	395	26	14	9	8
7637	38	5,91	395	26	14	9	8
7638	56	7,00	500	27	15	9	8
7639	42	4,28	235	25	15	9	8
7640	34	4,43	249	27	14	9	8
7641	41	4,18	229	24	14	9	8
7642	37	4,27	244	24	12	9	8
7643	32	4,47	258	25	12	9	8
7644	34	4,13	234	24	12	8	8
7645	37	3,94	222	22	12	8	8
7646	36	4,39	273	21	12	7	8
7647	51	4,20	266	23	13	4	6
7648	47	4,52	300	22	13	4	6
7649	39	3,83	229	23	13	4	6
7650	36	3,96	242	23	13	4	6
7651	57	4,19	258	22	15	4	6
7652	47	4,08	232	23	20	4	6
7653	50	5,34	365	22	18	4	6
7654	45	5,22	360	18	18	4	6
7655	49	4,44	286	25	12	4	6
7656	45	3,64	236	13	12	4	4
7657	44	4,09	287	13	10	4	4
7658	47	4,25	303	13	10	4	4
7659	44	4,29	307	13	10	4	4
7660	46	4,24	310	13	7	4	4
7661	50	4,15	310	10	7	3	4
7662	43	4,19	300	13	10	3	4
7663	44	5,17	395	13	11	3	4
7664	61	6,25	501	16	10	3	4
7665	61	6,25	501	16	10	3	4
7666	37	5,88	450	16	9	4	6
7667	44	5,74	435	17	9	4	6
7668	43	5,42	400	16	9	4	7
7669	44	4,81	317	16	9	4	12
7670	49	4,88	322	17	9	4	12
7671	49	7,65	587	14	9	4	12

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7672	43	7,50	533	15	12	12	12
7673	38	8,54	632	17	12	15	10
7674	37	8,45	664	16	12	15	10
7675	12	7,16	572	31	24	7	0
7676	24	6,91	601	13	9	3	3
7677	24	7,09	602	13	11	4	4
7678	12	6,50	550	15	13	4	2
7679	30	6,50	545	20	7	4	3
7680	26	7,07	600	18	9	3	3
7681	26	6,99	585	19	8	4	4
7682	40	6,98	590	21	9	4	2
7683	30	7,00	600	22	7	3	1
7684	21	7,10	610	20	8	3	2
7685	27	6,89	580	19	9	3	3
7686	20	6,95	589	17	8	4	3
7687	29	6,67	607	18	3	1	1
7688	18	7,02	604	19	8	3	2
7689	18	7,17	616	18	7	4	1
7690	20	5,97	492	17	6	4	2
7691	19	3,75	295	13	7	3	0
7692	42	3,71	290	17	6	2	1
7693	28	3,73	292	17	6	3	1
7694	15	4,02	294	20	8	4	2
7695	56	4,12	296	21	9	5	2
7696	51	4,26	298	22	10	6	2
7697	29	4,28	300	22	10	6	2
7698	56	4,46	301	23	11	6	3
7699	70	4,40	300	24	12	7	1
7700	44	4,59	302	25	11	6	3
7701	33	4,54	302	25	11	6	2
7702	8	4,55	305	26	11	6	1
7703	25	4,73	305	28	12	7	1
7704	14	4,82	306	28	13	6	2
7705	14	4,84	305	29	13	8	0
7706	24	5,01	306	30	14	9	0
7707	24	5,19	307	29	15	10	1
7708	21	5,27	310	30	16	9	0
7709	26	5,36	311	31	18	9	2
7710	37	5,13	309	32	17	8	0
7711	38	5,17	308	29	16	9	1
7712	41	5,24	308	28	15	8	1
7713	29	5,36	307	27	19	7	1
7714	18	5,23	310	27	19	6	0
7715	14	5,09	308	26	18	5	1
7716	40	4,92	308	26	16	5	1
7717	38	4,77	307	25	15	4	0
7718	18	4,81	305	27	17	4	1
7719	31	4,66	306	26	16	3	0
7720	14	4,64	300	25	15	4	1
7721	9	4,46	305	25	14	3	0
7722	6	4,68	305	24	13	4	1
7723	20	4,42	300	23	12	4	0
7724	23	4,81	350	25	11	3	0
7725	15	4,92	308	26	16	5	1
7726	44	4,77	307	25	15	4	0
7727	38	4,81	305	27	17	4	1

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7728	30	4,66	306	26	16	3	0
7729	34	4,64	300	25	15	4	1
7730	40	4,46	305	25	14	3	0
7731	30	4,68	305	24	13	4	1
7732	49	4,42	300	23	12	4	0
7733	38	4,81	350	25	11	3	0
7734	41	4,92	308	26	16	5	1
7735	35	4,77	307	25	15	4	0
7736	31	4,81	305	27	17	4	1
7737	43	5,63	439	18	11	5	1
7738	30	6,86	645	6	3	5	0
7739	43	7,52	720	7	3	1	0
7740	48	8,84	851	2	3	4	0
7741	60	8,01	774	6	2	2	0
7742	56	6,83	658	7	2	1	0
7743	47	6,87	669	7	2	0	0
7744	51	7,16	696	8	2	0	0
7745	57	7,19	696	8	3	0	0
7746	48	8,50	830	8	2	0	0
7747	36	7,30	703	8	2	2	0
7748	41	6,48	626	5	2	1	0
7749	29	6,28	607	7	3	0	0
7750	32	6,97	681	6	2	0	0
7751	30	6,39	617	5	2	1	0
7752	49	6,01	575	8	3	1	0
7753	33	7,08	676	9	2	1	0
7754	42	7,76	741	7	3	1	0
7755	54	5,44	510	6	2	3	0
7756	35	2,86	254	5	2	5	0
7757	47	6,29	600	8	4	1	0
7758	61	8,00	776	7	3	0	0
7759	46	8,16	792	7	3	0	0
7760	25	13,14	1263	13	5	4	0
7761	92	9,61	920	13	4	0	0
7762	58	25,61	2483	23	7	5	0
7763	61	25,61	2483	23	7	5	0
7764	54	25,61	2483	23	7	5	0
7765	38	25,61	2483	23	7	5	0
7766	34	25,61	2483	23	7	5	0
7767	6	11,65	1151	8	0	0	0
7768	34	11,41	1115	6	3	2	0
7769	31	11,90	1139	10	3	5	0
7770	19	12,57	1190	17	4	5	0
7771	20	11,87	1153	10	2	0	0
7772	18	12,44	1192	12	2	3	0
7773	13	12,88	1226	12	3	5	0
7774	27	10,97	1068	10	4	0	0
7775	25	11,57	1100	10	9	4	0
7776	13	11,47	1107	9	6	2	0
7777	20	12,03	1175	11	3	0	0
7778	15	11,41	1105	9	2	4	0
7779	13	11,01	1065	10	4	0	0
7780	10	14,38	1386	15	4	3	0
7781	4	10,48	999	16	6	0	0
7782	11	11,33	1088	11	4	4	0
7783	12	12,64	1205	16	7	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7784	3	12,63	1208	16	7	2	0
7785	22	19,23	1871	23	4	0	0
7786	20	16,41	1596	19	4	0	0
7787	18	19,23	1871	23	4	0	0
7788	20	16,41	1596	19	4	0	0
7789	15	16,41	1596	19	4	0	0
7790	24	17,68	1714	21	6	0	0
7791	24	5,00	448	18	6	1	0
7792	25	4,81	427	19	6	1	0
7793	26	4,86	417	19	7	1	1
7794	25	4,97	419	11	7	6	2
7795	11	6,30	571	11	7	0	0
7796	12	6,51	600	12	7	3	0
7797	10	6,48	600	10	7	3	0
7798	23	7,42	647	11	7	6	2
7799	26	7,05	638	9	7	4	3
7800	23	6,74	623	10	6	0	0
7801	27	7,58	654	9	6	3	5
7802	28	6,76	614	11	6	4	1
7803	11	6,53	565	10	6	4	1
7804	22	5,90	543	10	6	1	2
7805	9	6,08	514	11	6	5	2
7806	13	6,23	547	10	6	3	2
7807	21	6,07	526	11	6	2	2
7808	21	5,99	529	10	6	2	3
7809	12	6,03	531	11	6	3	1
7810	15	5,92	520	11	6	3	2
7811	9	6,18	554	11	6	1	2
7812	14	6,26	529	8	6	4	2
7813	17	6,21	569	11	6	1	0
7814	17	6,53	554	10	6	1	2
7815	10	5,24	461	10	6	1	3
7816	11	6,14	560	10	6	1	1
7817	16	6,26	548	11	6	2	1
7818	20	6,36	550	11	6	3	2
7819	20	6,57	573	11	7	3	3
7820	18	6,73	599	10	7	1	3
7821	18	6,60	607	10	7	0	1
7822	35	6,46	593	10	7	0	1
7823	36	6,36	573	10	7	0	3
7824	36	6,44	593	9	7	0	1
7825	24	6,52	612	9	6	0	0
7826	24	6,78	616	9	6	0	4
7827	17	7,43	673	11	6	1	4
7828	27	8,12	756	11	6	1	2
7829	27	9,01	829	10	6	1	1
7830	48	5,38	492	10	6	1	0
7831	53	4,88	442	10	6	1	0
7832	52	5,61	492	10	7	1	1
7833	41	6,50	565	11	7	1	5
7834	40	6,54	592	11	7	4	2
7835	48	6,97	630	11	7	0	0
7836	46	5,74	532	11	7	1	0
7837	58	5,68	511	11	7	4	0
7838	63	5,55	492	10	7	6	1
7839	44	6,41	571	10	7	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7840	50	6,40	578	10	7	6	0
7841	56	7,05	615	10	7	3	2
7842	50	6,70	581	10	7	5	0
7843	75	5,61	467	9	7	3	4
7844	44	5,41	465	9	7	3	6
7845	49	5,16	406	9	7	4	6
7846	44	3,85	327	9	7	3	1
7847	47	5,23	465	9	6	4	1
7848	53	5,55	475	9	6	4	4
7849	36	5,76	500	9	6	4	3
7850	53	10,93	1005	14	8	2	2
7851	52	10,95	1005	14	9	2	2
7852	64	9,07	845	9	7	3	2
7853	50	8,90	803	10	6	4	2
7854	27	8,90	821	9	5	4	3
7855	78	10,93	1030	9	4	2	3
7856	31	13,02	1239	10	4	0	3
7857	40	11,05	1045	7	4	2	0
7858	45	9,17	860	7	4	2	0
7859	69	6,71	648	7	4	0	0
7860	87	6,83	651	7	7	0	0
7861	69	8,96	841	8	6	1	3
7862	77	10,21	963	8	4	1	3
7863	46	10,12	953	8	4	1	3
7864	39	10,46	985	9	4	0	3
7865	40	10,89	1026	10	4	0	3
7866	38	10,85	1007	10	4	3	3
7867	37	10,43	968	9	5	3	3
7868	33	10,26	951	9	5	3	3
7869	32	9,84	915	9	4	2	3
7870	36	9,66	901	9	4	1	3
7871	38	9,40	882	8	5	0	2
7872	34	8,68	817	5	3	1	2
7873	40	7,79	720	7	4	4	2
7874	34	5,81	531	6	4	2	2
7875	21	4,81	428	5	4	2	3
7876	50	5,28	476	7	4	2	2
7877	39	5,28	476	7	4	2	2
7878	39	5,51	497	6	4	3	1
7879	31	5,51	515	5	4	1	1
7880	32	5,54	523	5	4	1	0
7881	26	5,73	542	5	4	1	0
7882	28	6,54	601	5	4	1	0
7883	29	7,15	658	8	4	1	0
7884	33	7,33	680	6	3	1	3
7885	36	7,41	712	8	4	1	0
7886	36	7,68	715	7	4	1	1
7887	16	7,13	662	6	4	1	2
7888	30	6,44	602	6	4	1	2
7889	27	6,61	632	6	4	1	0
7890	22	7,94	755	7	4	2	1
7891	39	6,06	564	8	4	0	1
7892	39	6,26	585	7	3	1	1
7893	19	6,04	561	8	3	1	1
7894	10	6,41	610	4	3	1	0
7895	30	6,24	580	6	3	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7896	15	6,05	544	6	3	3	2
7897	32	6,20	552	7	3	1	5
7898	30	6,47	547	4	4	2	6
7899	24	6,37	532	5	4	3	4
7900	21	5,94	501	5	3	2	3
7901	15	5,99	527	6	2	2	2
7902	33	6,99	594	7	4	2	6
7903	20	6,85	564	9	4	4	1
7904	20	5,42	472	7	3	3	0
7905	27	5,20	480	6	4	2	0
7906	30	4,92	445	7	2	0	5
7907	19	4,92	445	7	2	0	5
7908	61	4,66	427	7	4	1	0
7909	17	5,57	463	8	3	4	0
7910	1	4,44	343	8	1	0	8
7911	5	3,17	295	6	4	0	0
7912	13	5,01	406	6	4	1	0
7913	13	5,80	551	6	4	1	0
7914	17	5,76	517	8	4	0	0
7915	31	5,59	536	7	4	0	0
7916	38	6,52	550	9	7	5	1
7917	37	6,40	566	6	3	0	3
7918	37	7,13	604	7	4	2	0
7919	44	7,48	642	11	5	3	0
7920	34	7,28	670	6	3	0	4
7921	38	8,56	742	9	3	4	1
7922	50	8,83	745	7	6	6	0
7923	39	7,56	716	7	4	1	2
7924	43	7,56	710	6	2	0	1
7925	49	8,08	742	5	2	0	4
7926	39	8,12	753	6	4	2	1
7927	42	8,34	704	8	4	6	0
7928	39	8,18	716	8	3	5	0
7929	38	7,38	676	9	3	0	5
7930	33	7,02	667	7	2	1	1
7931	45	6,54	639	7	1	0	0
7932	46	5,74	556	7	2	0	0
7933	56	6,41	587	6	2	0	1
7934	51	7,55	714	6	2	0	4
7935	47	7,86	742	5	2	0	5
7936	51	8,17	771	4	2	1	6
7937	51	7,43	713	8	3	2	0
7938	43	6,51	587	6	2	0	1
7939	38	8,35	729	7	2	4	0
7940	42	8,35	729	7	2	4	0
7941	41	6,66	612	6	2	1	5
7942	39	5,93	540	6	3	1	5
7943	34	5,78	525	6	2	3	3
7944	33	5,89	541	6	2	2	2
7945	42	5,53	500	6	2	3	3
7946	35	5,48	507	6	2	1	3
7947	46	13,47	1281	12	5	2	0
7948	50	13,47	1281	12	5	2	0
7949	38	4,70	444	10	3	0	0
7950	39	4,68	444	9	3	0	0
7951	50	12,70	1225	12	6	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
7952	31	10,64	1013	9	4	3	0
7953	49	11,35	1095	9	3	1	0
7954	38	12,71	1233	11	4	1	0
7955	43	11,63	1115	11	3	0	0
7956	41	11,63	1115	11	3	0	0
7957	38	11,59	1116	9	4	1	0
7958	47	10,87	1010	11	4	2	0
7959	45	9,09	854	12	5	1	0
7960	51	7,61	722	8	2	1	1
7961	37	7,87	754	7	2	1	0
7962	34	7,68	744	5	3	1	0
7963	25	7,68	744	5	3	1	0
7964	25	7,68	744	5	3	1	0
7965	25	5,84	573	6	0	0	0
7966	40	5,86	573	7	0	0	0
7967	29	7,93	750	9	4	0	0
7968	22	7,98	727	11	6	5	0
7969	21	7,93	727	11	6	5	0
7970	26	7,77	736	11	5	0	0
7971	45	6,98	647	12	5	1	1
7972	45	6,29	594	12	5	0	0
7973	42	6,25	594	11	4	0	0
7974	18	7,48	692	10	4	3	1
7975	44	5,88	526	10	4	2	1
7976	25	4,47	398	8	4	1	0
7977	8	4,58	438	7	1	0	1
7978	23	3,60	332	5	2	0	1
7979	29	4,10	373	6	2	1	1
7980	35	4,13	379	7	5	1	0
7981	33	4,03	362	7	5	2	0
7982	22	3,99	359	8	4	3	0
7983	28	4,27	391	6	4	4	0
7984	14	4,89	468	5	3	0	0
7985	11	6,87	647	11	2	4	0
7986	28	6,44	612	6	4	2	0
7987	17	5,70	529	9	4	4	0
7988	17	5,80	543	6	3	3	0
7989	26	5,55	535	5	4	0	0
7990	34	4,75	452	6	3	1	0
7991	25	4,22	386	6	4	4	0
7992	55	3,90	358	7	3	3	0
7993	19	3,94	358	8	4	0	0
7994	31	3,60	343	6	1	1	0
7995	38	2,57	228	6	4	2	0
7996	23	3,83	352	7	4	2	0
7997	50	4,53	424	8	4	1	0
7998	14	3,82	360	7	2	1	0
7999	63	3,83	355	7	3	1	0
8000	21	4,05	387	7	2	0	0
8001	42	5,87	556	7	4	0	0
8002	38	5,90	564	9	1	1	0
8003	21	3,91	353	3	4	6	0
8004	34	2,80	266	6	0	1	0
8005	40	3,07	276	8	2	3	0
8006	18	2,77	246	4	2	2	0
8007	14	2,94	263	2	2	4	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8008	70	3,18	287	2	2	5	0
8009	69	3,23	298	5	2	2	0
8010	36	3,24	309	5	1	0	0
8011	32	3,51	333	5	2	0	0
8012	11	3,21	298	7	1	0	0
8013	21	3,21	298	6	2	2	0
8014	33	4,02	375	6	2	3	0
8015	30	5,58	532	8	3	1	0
8016	47	6,74	650	9	3	0	0
8017	46	6,76	648	7	3	1	0
8018	44	6,43	604	6	5	2	0
8019	33	5,43	504	9	3	4	0
8020	35	4,86	461	5	2	1	0
8021	34	4,35	411	5	3	1	0
8022	40	5,30	503	6	2	3	0
8023	33	5,77	530	8	4	4	0
8024	51	5,19	482	6	3	3	0
8025	44	5,53	527	6	3	0	0
8026	37	6,07	585	7	2	0	0
8027	41	8,16	776	8	4	2	0
8028	44	14,96	1454	11	7	1	0
8029	52	13,01	1260	10	6	2	0
8030	63	9,85	962	8	2	0	0
8031	60	9,69	925	11	5	2	0
8032	51	9,60	918	10	5	2	0
8033	39	9,23	890	7	5	2	0
8034	70	8,99	868	7	4	2	0
8035	64	8,07	780	10	2	1	0
8036	64	8,07	780	10	2	1	0
8037	26	8,07	780	10	2	1	0
8038	41	9,60	918	10	5	2	0
8039	47	9,27	890	9	5	2	0
8040	38	9,02	868	9	4	2	0
8041	40	8,07	780	10	2	1	0
8042	40	8,07	780	10	2	1	0
8043	39	7,51	728	8	2	0	0
8044	39	8,20	788	7	3	3	0
8045	13	8,20	788	7	3	3	0
8046	15	8,88	856	8	4	2	0
8047	39	8,88	856	8	4	2	0
8048	14	13,04	1250	14	8	2	0
8049	79	13,04	1250	14	8	2	0
8050	81	12,45	1210	12	5	0	0
8051	28	12,10	1147	16	6	4	0
8052	37	11,23	1079	11	5	3	0
8053	21	11,39	1085	11	6	4	0
8054	39	11,32	1085	11	6	2	0
8055	8	12,72	1223	12	6	2	0
8056	52	16,95	1638	14	5	4	0
8057	36	18,41	1785	15	8	0	0
8058	29	18,06	1755	15	5	1	0
8059	50	18,97	1825	17	6	2	0
8060	42	18,15	1761	15	6	1	0
8061	49	17,74	1729	14	6	0	0
8062	44	17,23	1700	7	4	0	0
8063	30	9,91	938	9	7	5	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8064	38	9,57	902	14	7	0	0
8065	8	7,90	754	10	4	0	0
8066	38	7,56	712	11	5	3	0
8067	23	6,84	650	6	6	2	0
8068	23	5,14	490	9	3	0	0
8069	80	6,36	598	8	6	0	0
8070	48	6,78	652	7	5	0	0
8071	31	8,94	848	13	7	0	0
8072	20	9,91	938	9	7	5	0
8073	24	9,57	902	14	7	0	0
8074	22	9,57	902	14	7	0	0
8075	20	3,62	347	7	1	0	0
8076	46	7,98	772	10	3	0	0
8077	49	9,61	919	13	3	2	0
8078	48	9,24	892	7	3	2	0
8079	36	8,42	818	7	3	1	0
8080	38	7,73	738	8	5	0	0
8081	49	8,74	828	15	3	0	0
8082	40	7,48	720	7	3	2	0
8083	43	7,40	709	10	2	1	0
8084	42	9,18	890	12	1	0	0
8085	39	7,43	731	5	1	0	0
8086	37	10,16	984	11	3	1	0
8087	38	10,70	1039	10	2	2	0
8088	34	10,08	965	10	4	2	0
8089	27	10,00	957	10	4	2	0
8090	31	9,81	940	11	4	1	0
8091	43	10,83	1033	15	7	0	0
8092	30	12,02	1147	17	5	3	0
8093	36	11,12	1065	13	6	0	0
8094	33	10,95	1054	12	7	0	0
8095	45	11,16	1073	19	2	0	0
8096	38	12,24	1224	0	0	0	0
8097	39	10,53	1010	7	2	3	0
8098	56	9,16	878	12	6	0	0
8099	43	8,93	845	13	5	2	0
8100	40	7,10	665	6	6	5	0
8101	49	6,24	624	0	0	0	0
8102	60	8,24	783	11	5	0	0
8103	48	9,12	864	16	3	2	0
8104	45	9,12	864	16	3	2	0
8105	49	9,12	864	16	3	2	0
8106	38	9,56	916	11	6	1	0
8107	42	9,90	949	13	5	0	0
8108	39	10,22	973	12	6	3	0
8109	66	9,67	918	12	6	3	0
8110	44	9,35	890	12	6	2	0
8111	40	9,75	913	14	7	3	0
8112	36	9,10	854	14	6	3	0
8113	42	8,31	782	13	4	3	0
8114	50	13,50	1300	17	6	1	0
8115	42	10,56	1014	14	5	1	0
8116	40	8,73	814	14	7	4	0
8117	56	9,16	868	11	5	4	0
8118	56	9,58	920	11	4	1	0
8119	40	9,31	890	9	4	4	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8120	60	8,99	870	8	4	1	0
8121	54	8,07	780	10	2	1	0
8122	58	8,07	780	10	2	1	0
8123	61	8,07	780	10	2	1	0
8124	55	9,60	918	10	5	2	0
8125	53	9,27	890	9	5	2	0
8126	45	9,02	868	9	4	2	0
8127	45	8,07	780	10	2	1	0
8128	42	8,07	780	10	2	1	0
8129	45	7,51	728	8	2	0	0
8130	44	8,20	788	7	3	3	0
8131	45	14,21	1362	22	6	1	0
8132	52	15,23	1463	21	7	1	0
8133	46	15,67	1508	17	8	1	0
8134	52	14,87	1429	16	8	1	0
8135	42	12,48	1187	17	6	3	0
8136	42	12,48	1187	17	6	3	0
8137	42	12,48	1187	17	6	3	0
8138	50	14,13	1363	22	4	0	0
8139	48	14,13	1363	22	4	0	0
8140	49	10,50	999	15	5	1	0
8141	37	14,96	1432	21	7	2	0
8142	82	14,34	1375	22	6	1	0
8143	54	14,09	1353	20	6	1	0
8144	39	14,92	1430	20	7	2	0
8145	37	16,60	1589	25	7	2	0
8146	40	28,59	2782	30	7	0	0
8147	38	11,17	1082	13	3	1	0
8148	34	24,99	2411	26	6	6	0
8149	70	32,55	3145	36	14	2	0
8150	55	32,93	3194	36	10	2	0
8151	36	32,24	3126	35	9	1	0
8152	42	26,76	2579	31	10	3	0
8153	46	21,48	2076	22	8	1	0
8154	41	20,84	2014	22	6	2	0
8155	39	18,70	1810	20	5	2	0
8156	36	17,74	1722	21	4	1	0
8157	36	17,12	1636	28	8	0	0
8158	35	70,24	6866	53	19	1	0
8159	38	55,39	5410	43	15	2	0
8160	35	25,67	2497	22	6	4	0
8161	36	16,49	1587	16	7	2	0
8162	29	15,47	1489	16	4	5	0
8163	39	15,51	1502	16	6	0	0
8164	33	15,49	1491	17	6	3	0
8165	31	16,22	1569	18	5	0	0
8166	32	15,82	1522	16	5	3	0
8167	32	14,62	1400	14	7	4	0
8168	30	29,20	2835	27	12	1	0
8169	40	8,07	756	11	5	1	0
8170	65	10,68	1001	18	6	4	0
8171	15	11,17	1059	17	6	3	0
8172	45	11,62	1116	14	5	1	0
8173	23	11,93	1128	17	6	5	0
8174	38	10,48	999	16	6	0	0
8175	31	10,21	970	15	5	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8176	33	8,32	796	8	4	2	0
8177	23	10,22	981	13	4	1	0
8178	37	10,93	1043	13	3	5	0
8179	29	11,25	1081	12	3	4	0
8180	27	11,11	1058	15	3	4	0
8181	15	11,05	1062	14	4	1	0
8182	37	11,97	1148	12	6	2	0
8183	32	13,31	1284	18	4	0	0
8184	29	13,86	1342	16	3	2	0
8185	34	12,94	1244	14	4	0	0
8186	32	14,80	1437	18	4	0	0
8187	29	15,19	1463	14	6	4	0
8188	33	15,76	1526	16	4	3	0
8189	32	15,93	1546	16	4	2	0
8190	45	15,85	1533	15	4	1	0
8191	48	15,85	1535	14	5	2	0
8192	43	17,60	1704	17	4	1	0
8193	48	13,07	1266	15	5	0	0
8194	30	15,21	1452	16	7	4	0
8195	45	15,17	1462	19	5	0	0
8196	46	15,02	1443	18	6	3	0
8197	31	14,21	1370	17	5	1	0
8198	37	13,91	1343	17	5	0	0
8199	17	16,28	1562	20	7	3	0
8200	66	14,90	1426	19	7	2	0
8201	49	12,96	1237	18	7	1	0
8202	25	14,82	1427	14	7	1	0
8203	69	16,19	1564	17	9	0	0
8204	37	15,85	1522	15	8	4	0
8205	30	17,83	1715	24	8	0	0
8206	36	17,57	1691	21	6	3	0
8207	23	17,31	1659	21	7	4	0
8208	46	15,99	1539	17	6	3	0
8209	49	15,56	1494	17	7	4	0
8210	52	16,01	1537	19	6	3	0
8211	39	15,26	1459	20	6	3	0
8212	21	15,10	1449	18	6	2	0
8213	26	14,94	1440	17	6	2	0
8214	29	14,78	1430	15	6	1	0
8215	35	14,54	1406	15	5	1	0
8216	22	12,77	1238	17	3	0	0
8217	31	11,09	1057	17	4	1	0
8218	8	8,34	805	4	4	2	0
8219	25	10,35	1000	9	3	2	0
8220	22	10,90	1049	13	5	1	0
8221	12	12,12	1169	12	4	2	0
8222	30	12,85	1244	8	6	3	0
8223	23	11,54	1099	11	5	3	0
8224	15	11,69	1131	11	4	1	0
8225	14	15,58	1508	15	3	2	0
8226	14	15,84	1528	17	4	2	0
8227	14	16,13	1549	18	5	2	0
8228	14	16,43	1570	20	7	2	0
8229	17	15,36	1495	13	5	1	0
8230	25	15,13	1453	15	7	4	0
8231	28	16,78	1607	19	7	4	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8232	40	16,97	1629	19	7	4	0
8233	51	17,30	1664	20	7	2	0
8234	40	16,86	1627	20	7	1	0
8235	5	16,86	1627	20	7	1	0
8236	19	9,71	929	9	3	5	0
8237	18	10,33	995	10	2	4	0
8238	31	10,33	1001	10	4	1	0
8239	38	9,89	957	13	3	0	0
8240	27	10,26	976	10	5	3	0
8241	33	11,23	1073	10	4	5	0
8242	32	11,57	1118	10	5	1	0
8243	32	11,67	1135	8	5	0	0
8244	28	11,87	1137	14	4	4	0
8245	29	10,82	1044	13	4	0	0
8246	39	10,66	1033	9	5	1	0
8247	32	9,93	949	13	5	1	0
8248	30	10,45	1016	10	4	0	0
8249	30	10,85	1044	8	6	3	0
8250	30	10,49	995	8	4	7	0
8251	30	9,22	896	8	3	1	0
8252	27	9,21	876	13	4	3	0
8253	29	6,69	649	11	0	0	0
8254	31	8,52	807	11	4	3	0
8255	28	9,35	885	12	5	4	0
8256	30	9,02	870	9	6	0	0
8257	32	8,82	832	9	7	3	0
8258	31	9,07	866	10	3	1	0
8259	31	8,46	821	11	2	0	0
8260	31	8,92	833	12	7	3	0
8261	30	9,14	857	10	5	7	0
8262	35	7,55	737	10	0	0	0
8263	31	8,92	851	15	4	1	0
8264	25	9,00	856	13	5	1	0
8265	43	9,12	872	14	4	1	0
8266	33	9,03	853	12	5	4	0
8267	37	9,92	933	15	5	5	0
8268	33	9,91	952	12	5	1	0
8269	39	8,60	816	11	5	0	0
8270	41	9,40	904	10	4	1	0
8271	36	9,43	907	8	4	1	0
8272	30	8,28	789	9	3	1	0
8273	42	6,87	664	8	2	1	0
8274	35	7,80	741	9	3	4	0
8275	35	6,71	638	8	3	2	0
8276	38	6,72	614	15	6	4	0
8277	43	6,20	578	9	3	5	0
8278	28	7,41	688	11	3	6	0
8279	24	7,40	709	8	2	1	0
8280	30	7,16	683	8	3	2	0
8281	34	8,28	763	18	4	2	0
8282	35	5,22	484	9	8	0	0
8283	38	7,76	723	9	3	5	0
8284	33	8,30	731	16	6	7	0
8285	30	8,06	753	13	3	5	0
8286	35	8,25	777	13	5	3	0
8287	31	7,18	674	9	5	4	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8288	33	7,24	661	10	6	7	0
8289	46	7,52	714	9	4	0	0
8290	36	7,60	710	11	6	3	0
8291	53	7,67	687	12	7	6	0
8292	36	7,34	654	10	7	5	0
8293	39	5,57	521	8	4	3	0
8294	41	6,59	607	8	6	3	0
8295	44	7,20	681	9	3	4	0
8296	42	7,75	729	11	3	5	0
8297	57	7,98	750	9	5	5	0
8298	44	8,41	803	14	2	2	0
8299	45	12,82	1248	8	6	0	0
8300	39	15,08	1440	14	8	2	0
8301	46	14,27	1362	11	6	5	0
8302	45	13,09	1250	10	6	6	0
8303	55	12,17	1141	18	8	6	0
8304	60	11,34	1061	17	9	5	0
8305	55	9,41	883	15	6	4	0
8306	49	11,58	1039	17	6	8	0
8307	38	11,13	1041	12	8	8	0
8308	45	8,54	771	13	6	7	0
8309	39	7,92	756	9	6	1	0
8310	38	11,96	1130	15	9	3	0
8311	44	10,30	955	13	11	6	0
8312	47	11,62	1093	18	7	4	0
8313	44	10,95	1038	12	5	6	0
8314	49	9,81	925	12	6	5	0
8315	52	8,00	750	12	5	4	0
8316	49	7,11	655	12	6	5	0
8317	70	5,97	528	14	7	7	0
8318	33	6,08	535	14	7	7	0
8319	64	5,80	515	13	6	6	0
8320	50	4,96	450	11	3	2	0
8321	59	4,15	368	10	4	3	0
8322	55	4,90	444	10	5	4	0
8323	53	4,72	405	10	6	6	0
8324	55	7,60	725	9	3	2	0
8325	43	8,76	814	12	7	5	0
8326	49	8,74	820	11	6	3	0
8327	42	8,74	820	11	6	3	0
8328	42	8,74	820	11	6	3	0
8329	78	7,99	750	11	4	3	0
8330	83	8,08	760	11	5	3	0
8331	85	8,25	780	11	4	3	0
8332	79	8,00	750	10	5	3	0
8333	75	7,99	740	13	5	3	0
8334	57	7,39	700	6	5	3	0
8335	49	7,28	683	9	4	3	0
8336	39	7,28	683	9	4	3	0
8337	43	6,46	598	9	5	3	0
8338	56	8,37	787	12	4	3	0
8339	54	9,09	855	13	6	3	0
8340	51	8,57	803	8	8	3	0
8341	48	8,37	787	9	7	3	0
8342	50	7,50	714	6	4	3	0
8343	51	7,32	687	10	6	3	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8344	45	7,04	669	7	3	3	0
8345	38	7,85	733	7	4	5	0
8346	42	7,61	728	5	5	0	0
8347	38	6,50	606	9	5	3	0
8348	37	8,05	758	12	4	2	0
8349	38	8,00	748	10	6	3	0
8350	43	7,10	660	10	5	3	0
8351	47	7,52	708	9	5	3	0
8352	45	8,45	801	9	5	3	0
8353	42	8,98	854	11	5	2	0
8354	40	10,67	1012	17	5	2	0
8355	46	10,64	1024	10	4	2	0
8356	46	10,64	1024	10	4	2	0
8357	37	7,89	748	9	4	2	0
8358	36	5,69	525	9	5	2	0
8359	41	5,48	500	9	5	3	0
8360	56	5,56	510	8	5	3	0
8361	35	5,66	520	8	5	3	0
8362	56	5,76	530	8	5	3	0
8363	60	4,95	450	9	4	3	0
8364	35	10,15	977	9	4	3	0
8365	44	8,31	780	13	5	3	0
8366	47	8,49	811	9	4	3	0
8367	38	8,49	811	9	4	3	0
8368	41	7,70	736	7	4	3	0
8369	46	7,95	761	7	4	2	0
8370	41	8,52	812	10	4	1	0
8371	44	12,91	1238	14	5	2	0
8372	29	12,65	1216	18	6	0	0
8373	47	13,71	1319	12	6	3	0
8374	50	11,10	1062	10	7	3	0
8375	40	11,10	1062	10	7	3	0
8376	58	11,10	1062	10	7	3	0
8377	37	16,09	1541	15	6	5	0
8378	59	20,39	1980	14	7	4	0
8379	46	19,43	1886	13	7	0	0
8380	40	14,49	1397	10	6	5	0
8381	43	13,61	1312	15	4	2	0
8382	59	11,85	1151	7	4	1	0
8383	65	12,00	1166	7	4	2	0
8384	45	8,71	829	8	5	4	0
8385	45	8,71	829	8	5	4	0
8386	30	8,71	829	8	5	4	0
8387	30	8,70	829	7	5	4	0
8388	30	8,70	829	7	5	4	0
8389	45	8,55	805	8	4	6	0
8390	49	8,55	805	8	4	6	0
8391	53	10,24	957	12	6	6	0
8392	46	11,48	1089	12	6	4	0
8393	46	11,65	1099	11	5	7	0
8394	51	10,21	979	12	5	0	0
8395	50	9,71	931	9	6	0	0
8396	36	9,04	869	8	5	0	0
8397	36	7,63	730	5	5	1	0
8398	28	7,03	628	12	5	7	0
8399	58	8,63	813	10	4	6	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8400	44	8,12	775	10	3	3	0
8401	36	7,28	692	12	4	0	0
8402	60	6,04	589	7	1	0	0
8403	27	8,15	806	5	0	0	0
8404	49	6,86	658	5	3	3	0
8405	46	7,40	700	8	4	3	0
8406	50	8,65	826	8	5	3	0
8407	49	5,65	533	7	3	3	0
8408	65	4,75	442	6	3	4	0
8409	58	4,75	450	5	2	3	0
8410	46	7,05	686	4	3	1	0
8411	55	8,31	801	6	3	2	0
8412	65	10,34	1017	8	1	0	0
8413	65	10,24	984	8	4	3	0
8414	45	10,04	955	8	6	4	0
8415	45	10,41	1003	9	4	0	0
8416	65	9,16	874	10	5	1	0
8417	60	8,36	800	6	4	2	0
8418	65	7,84	750	7	4	1	0
8419	35	4,81	450	7	4	0	0
8420	60	8,98	867	7	4	0	0
8421	35	8,11	779	6	4	1	0
8422	60	8,27	791	10	4	1	0
8423	65	11,09	1082	10	2	0	0
8424	70	9,08	881	10	2	0	0
8425	59	9,75	948	10	2	0	0
8426	30	9,82	954	9	3	0	0
8427	48	9,46	917	8	4	0	0
8428	45	8,96	867	9	2	0	0
8429	35	7,68	730	9	4	1	0
8430	40	7,71	741	8	3	0	0
8431	43	8,68	832	8	4	1	0
8432	32	8,92	851	7	4	3	0
8433	37	8,86	855	10	2	1	0
8434	31	8,77	837	10	4	2	0
8435	31	6,64	631	8	3	2	0
8436	23	6,64	631	8	3	2	0
8437	38	10,27	989	9	4	2	0
8438	34	8,91	853	9	4	2	0
8439	48	12,98	1241	14	5	2	0
8440	37	11,24	1079	11	4	3	0
8441	38	9,27	890	9	5	1	0
8442	41	8,35	798	9	5	1	0
8443	35	8,18	785	10	3	1	0
8444	45	7,52	717	9	3	2	0
8445	39	11,68	1136	11	3	0	0
8446	36	17,14	1673	14	3	1	0
8447	45	14,47	1412	6	5	1	0
8448	52	11,16	1090	6	3	0	0
8449	48	10,50	1024	6	3	0	0
8450	38	10,90	1037	14	5	2	0
8451	37	6,55	623	7	3	1	0
8452	35	6,55	623	7	3	1	0
8453	39	5,98	564	10	2	1	0
8454	36	6,69	618	9	5	3	0
8455	36	6,62	621	5	4	3	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8456	39	6,88	647	7	4	3	0
8457	31	6,76	648	7	3	2	0
8458	34	5,38	522	4	2	1	0
8459	28	6,53	632	5	3	1	0
8460	37	6,43	607	6	4	2	0
8461	34	5,82	557	5	2	2	0
8462	38	6,47	596	9	5	4	0
8463	34	6,46	612	4	2	4	0
8464	36	7,00	650	7	6	5	0
8465	33	7,46	714	8	4	1	0
8466	42	7,51	719	8	4	2	0
8467	42	8,14	769	8	6	3	0
8468	32	6,66	634	8	4	1	0
8469	33	7,26	681	8	6	2	0
8470	37	8,47	818	6	4	0	0
8471	29	7,70	747	13	0	0	0
8472	34	7,33	671	6	7	9	0
8473	31	7,64	732	5	2	1	0
8474	36	9,21	877	14	3	3	0
8475	29	8,16	773	9	6	3	0
8476	37	8,41	767	16	10	4	0
8477	39	8,90	832	15	6	4	0
8478	42	7,07	677	8	3	2	0
8479	33	5,04	462	8	5	4	0
8480	35	7,41	706	9	3	3	0
8481	37	7,63	715	7	5	3	0
8482	35	7,57	705	13	4	4	0
8483	44	7,04	655	10	6	4	0
8484	39	6,89	650	7	3	4	0
8485	38	6,86	640	10	5	4	0
8486	40	6,54	626	7	3	0	0
8487	35	6,85	638	7	6	2	0
8488	41	6,81	622	11	4	8	0
8489	35	6,75	633	8	5	0	0
8490	36	6,32	596	5	2	5	0
8491	28	6,57	617	14	4	0	0
8492	30	7,29	684	9	4	5	0
8493	37	7,31	672	10	6	6	0
8494	28	7,28	666	11	5	5	0
8495	30	7,51	676	12	5	5	0
8496	29	7,48	690	14	4	4	0
8497	54	7,57	707	10	8	1	0
8498	32	7,96	744	8	6	5	0
8499	34	8,22	765	9	7	5	0
8500	34	8,15	761	10	8	4	0
8501	30	7,45	695	11	3	4	0
8502	55	6,20	579	10	2	3	0
8503	36	6,29	591	10	2	2	0
8504	56	6,80	644	9	2	2	0
8505	71	7,62	732	8	3	2	0
8506	55	8,61	823	12	6	0	0
8507	46	7,76	721	15	5	4	0
8508	33	7,26	687	8	5	3	0
8509	40	6,90	650	10	4	3	0
8510	32	6,81	647	7	4	3	0
8511	39	6,88	650	9	4	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8512	31	6,32	590	8	5	2	0
8513	65	6,17	580	11	5	1	0
8514	65	6,25	575	10	5	3	0
8515	25	6,29	570	11	5	3	0
8516	27	6,13	565	8	3	3	0
8517	28	7,32	683	11	4	3	0
8518	28	8,46	801	13	4	3	0
8519	65	7,74	738	8	4	0	0
8520	27	7,30	683	7	6	4	0
8521	40	9,12	875	14	3	1	0
8522	27	9,19	873	11	3	5	0
8523	26	9,17	858	9	8	4	0
8524	24	8,69	773	16	9	7	0
8525	28	9,45	875	14	10	3	0
8526	25	10,76	1033	13	6	0	0
8527	22	9,08	875	11	5	0	0
8528	25	7,32	693	7	3	5	0
8529	30	8,03	768	13	3	0	0
8530	30	8,20	792	9	3	0	0
8531	27	7,97	774	10	2	0	0
8532	27	8,31	781	14	4	4	0
8533	21	8,57	820	9	5	2	0
8534	23	8,67	807	9	3	5	0
8535	27	5,68	554	8	0	0	0
8536	25	9,83	934	9	4	4	0
8537	25	9,78	939	6	5	4	0
8538	26	10,51	1002	10	6	4	0
8539	23	10,49	1002	9	6	0	0
8540	29	10,91	1050	10	3	4	0
8541	32	10,08	956	8	6	1	0
8542	31	9,58	893	13	6	4	0
8543	29	8,26	787	9	3	4	0
8544	26	10,99	1017	13	7	5	0
8545	24	14,90	1419	16	9	5	0
8546	23	11,19	1088	11	4	0	0
8547	22	13,06	1256	17	3	2	0
8548	24	10,71	1030	11	4	3	0
8549	34	13,83	1317	24	7	1	0
8550	24	10,50	1020	8	3	0	0
8551	23	13,67	1319	14	7	1	0
8552	27	14,70	1427	15	6	0	0
8553	36	14,70	1427	15	6	0	0
8554	51	14,32	1385	13	6	1	0
8555	38	15,80	1534	15	7	0	0
8556	48	15,31	1469	19	5	3	0
8557	43	15,46	1494	18	6	1	0
8558	50	17,25	1677	16	7	0	0
8559	52	17,25	1677	16	7	0	0
8560	50	16,31	1580	17	5	1	0
8561	45	12,88	1249	14	5	0	0
8562	49	12,86	1249	13	5	0	0
8563	41	13,66	1317	14	6	2	0
8564	46	14,19	1373	14	5	1	0
8565	40	12,84	1232	16	6	2	0
8566	41	12,57	1225	12	4	0	0
8567	40	13,09	1265	13	5	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8568	55	12,70	1238	12	4	0	0
8569	46	12,96	1256	14	4	1	0
8570	52	13,55	1313	12	5	1	0
8571	48	13,99	1356	14	4	1	0
8572	39	14,45	1396	15	4	2	0
8573	44	13,62	1326	12	4	0	0
8574	56	13,67	1325	13	3	2	0
8575	44	13,13	1274	13	3	2	0
8576	60	12,50	1208	13	3	2	0
8577	56	7,38	708	12	3	0	0
8578	65	8,09	779	12	3	0	0
8579	68	10,35	996	11	3	2	0
8580	48	11,67	1119	13	5	3	0
8581	52	14,33	1385	13	5	2	0
8582	53	13,02	1262	12	4	2	0
8583	61	11,92	1147	13	4	2	0
8584	45	11,88	1147	13	4	1	0
8585	52	13,82	1346	12	4	0	0
8586	55	14,13	1372	13	4	2	0
8587	46	14,07	1346	18	4	4	0
8588	51	14,63	1418	13	4	3	0
8589	48	17,86	1731	19	5	2	0
8590	43	17,50	1677	17	5	4	0
8591	46	11,69	1111	15	6	4	0
8592	52	11,75	1120	15	5	4	0
8593	58	11,29	1090	12	5	0	0
8594	58	11,42	1100	12	5	0	0
8595	70	11,43	1102	11	5	0	0
8596	59	10,24	985	10	5	0	0
8597	90	10,29	990	10	5	0	0
8598	71	10,24	985	10	5	0	0
8599	72	11,53	1091	10	7	5	0
8600	59	11,75	1108	11	8	5	0
8601	51	13,74	1306	19	6	3	0
8602	51	12,99	1248	11	5	3	0
8603	29	13,14	1258	12	6	3	0
8604	53	13,36	1277	12	7	3	0
8605	44	11,89	1126	13	8	3	0
8606	67	12,02	1143	14	6	3	0
8607	33	12,61	1206	10	7	3	0
8608	61	12,45	1182	16	6	3	0
8609	53	11,72	1118	13	6	2	0
8610	60	9,67	925	14	5	0	0
8611	67	11,49	1099	17	6	0	0
8612	54	11,61	1099	17	5	4	0
8613	27	14,92	1425	20	6	1	0
8614	6	27,32	2673	22	6	0	0
8615	67	27,32	2673	22	6	0	0
8616	42	39,00	3777	35	9	4	0
8617	69	39,00	3777	35	9	4	0
8618	61	28,55	2767	26	6	3	0
8619	70	24,46	2363	27	6	2	0
8620	57	19,51	1897	16	4	0	0
8621	65	15,30	1480	14	5	1	0
8622	70	16,24	1583	15	5	0	0
8623	54	17,81	1722	24	6	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8624	59	16,23	1539	24	7	2	0
8625	36	14,90	1423	13	4	3	0
8626	43	16,36	1584	19	4	0	0
8627	52	15,98	1546	21	4	0	0
8628	38	24,67	2372	18	7	3	0
8629	46	20,54	1991	17	4	0	0
8630	43	11,56	1089	21	8	2	0
8631	39	12,55	1184	20	5	2	0
8632	45	12,55	1184	20	5	2	0
8633	34	11,18	1063	16	3	0	0
8634	37	13,59	1285	11	8	3	0
8635	45	13,59	1285	11	8	3	0
8636	39	58,05	5662	53	7	2	0
8637	40	72,88	7124	59	12	2	0
8638	38	117,20	11511	70	24	2	0
8639	47	37,02	3520	59	12	6	0
8640	24	23,53	2278	27	7	2	0
8641	29	23,26	2249	23	9	2	0
8642	38	21,58	2080	26	9	0	0
8643	37	20,32	1962	25	8	1	0
8644	37	16,31	1572	18	6	1	0
8645	31	13,72	1317	16	7	0	0
8646	28	12,74	1216	19	6	2	0
8647	38	11,03	1053	15	6	0	0
8648	36	13,02	1260	17	3	0	0
8649	33	11,28	1091	16	3	0	0
8650	34	12,56	1221	15	3	0	0
8651	38	12,27	1187	14	4	1	0
8652	40	10,96	1061	13	3	0	0
8653	50	10,31	999	13	2	0	0
8654	36	13,60	1325	13	3	1	0
8655	41	12,48	1208	12	4	0	0
8656	43	12,29	1186	14	4	2	0
8657	36	11,93	1163	10	3	1	0
8658	33	11,16	1075	11	5	2	0
8659	36	7,87	758	10	4	0	0
8660	37	8,41	807	11	4	1	0
8661	23	9,94	953	14	3	2	0
8662	43	12,59	1222	14	3	0	0
8663	32	14,12	1379	14	3	0	0
8664	37	22,14	2153	22	4	3	0
8665	45	23,68	2309	21	4	3	0
8666	40	12,04	1170	13	4	0	0
8667	40	8,48	831	5	3	0	0
8668	39	8,54	831	8	3	0	0
8669	36	14,69	1420	15	4	2	0
8670	40	14,33	1383	16	4	1	0
8671	39	9,19	881	15	4	0	0
8672	41	11,26	1089	14	3	1	0
8673	46	11,28	1091	14	3	1	0
8674	29	10,85	1034	17	5	2	0
8675	20	8,99	857	13	3	3	0
8676	22	8,39	796	12	4	2	0
8677	19	8,48	799	15	4	2	0
8678	17	7,64	737	5	4	2	0
8679	21	8,62	831	9	4	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8680	23	9,73	936	14	3	1	0
8681	20	10,79	1021	17	6	2	0
8682	43	11,74	1136	13	4	1	0
8683	31	13,58	1307	17	5	0	0
8684	26	12,32	1173	16	6	2	0
8685	42	11,32	1075	17	7	1	0
8686	35	13,59	1284	22	5	4	0
8687	42	13,91	1338	18	5	2	0
8688	48	14,03	1336	20	6	3	0
8689	44	14,67	1412	21	5	1	0
8690	49	15,01	1450	21	5	0	0
8691	47	14,51	1408	18	4	0	0
8692	61	13,68	1321	16	4	1	0
8693	46	10,65	1032	14	3	0	0
8694	35	10,60	1028	13	3	0	0
8695	41	10,87	1058	13	2	0	0
8696	31	13,54	1314	17	2	1	0
8697	30	6,38	596	10	5	1	0
8698	42	6,50	612	12	2	1	0
8699	47	6,97	650	11	6	2	0
8700	35	7,45	714	7	4	1	0
8701	41	7,53	719	9	4	2	0
8702	41	8,14	769	8	6	3	0
8703	38	4,66	437	6	4	2	0
8704	47	8,85	853	10	4	1	0
8705	41	9,02	872	10	3	1	0
8706	60	9,02	872	10	3	1	0
8707	59	5,45	520	7	2	1	0
8708	32	5,67	540	8	2	1	0
8709	29	13,42	1299	14	4	2	0
8710	50	13,83	1342	15	4	0	0
8711	52	14,84	1410	20	6	6	0
8712	52	14,21	1364	18	5	3	0
8713	53	12,68	1233	15	3	0	0
8714	43	11,98	1156	19	3	0	0
8715	45	9,27	886	11	4	3	0
8716	45	10,24	984	12	4	2	0
8717	55	9,93	963	12	3	0	0
8718	47	9,48	913	13	3	1	0
8719	35	9,30	893	12	3	0	0
8720	47	6,35	601	13	4	0	0
8721	47	6,23	593	12	3	0	0
8722	48	9,54	926	11	3	0	0
8723	36	8,72	844	11	3	0	0
8724	48	8,55	823	11	3	1	0
8725	50	9,10	874	12	4	0	0
8726	39	10,52	1012	12	4	2	0
8727	41	10,34	990	11	5	3	0
8728	51	10,34	990	11	5	3	0
8729	33	10,14	984	10	3	0	0
8730	34	10,62	1029	12	3	1	0
8731	25	9,23	898	11	2	0	0
8732	34	8,03	780	8	3	0	0
8733	44	8,03	780	8	3	0	0
8734	44	8,00	780	8	2	0	0
8735	44	8,03	780	8	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8736	39	8,80	847	12	3	0	0
8737	30	9,54	913	17	4	0	0
8738	37	9,54	913	17	4	0	0
8739	29	9,54	913	17	4	0	0
8740	33	10,14	971	12	4	3	0
8741	31	12,91	1247	15	5	0	0
8742	28	13,00	1259	17	4	0	0
8743	41	13,00	1259	17	4	0	0
8744	31	9,99	962	16	3	0	0
8745	36	8,96	851	15	4	1	0
8746	34	10,66	1020	14	5	2	0
8747	39	10,51	1013	13	4	1	0
8748	57	10,99	1051	13	5	2	0
8749	48	10,99	1051	13	5	2	0
8750	40	10,42	993	9	4	6	0
8751	52	11,12	1074	15	4	0	0
8752	38	11,12	1074	15	4	0	0
8753	37	12,25	1185	16	4	0	0
8754	43	12,65	1216	19	4	1	0
8755	39	11,90	1140	17	7	0	0
8756	41	11,93	1143	16	4	2	0
8757	49	9,64	928	15	2	0	0
8758	42	9,77	933	14	3	2	0
8759	49	9,75	933	13	3	2	0
8760	66	10,44	1012	11	2	0	0
8761	39	10,72	1022	12	5	3	0
8762	45	10,97	1062	11	3	0	0
8763	40	9,09	873	10	4	2	0
8764	41	9,73	947	10	3	0	0
8765	40	9,98	957	13	4	2	0
8766	41	9,72	937	10	5	1	0
8767	43	8,02	772	10	3	0	0
8768	43	7,03	673	10	3	1	0
8769	43	7,03	673	10	3	1	0
8770	43	7,03	673	10	3	1	0
8771	43	7,03	673	10	3	1	0
8772	43	9,27	895	12	4	0	0
8773	39	12,20	1183	14	3	1	0
8774	42	23,09	2246	19	8	2	0
8775	30	23,05	2246	19	8	1	0
8776	31	15,50	1509	14	3	2	0
8777	34	12,16	1172	12	3	3	0
8778	27	10,78	1043	11	3	2	0
8779	27	12,82	1246	13	2	1	0
8780	25	15,47	1497	16	4	2	0
8781	24	16,53	1608	15	4	1	0
8782	31	15,73	1528	16	2	2	0
8783	29	14,03	1346	14	5	4	0
8784	45	11,62	1127	13	3	0	0
8785	39	10,49	1018	14	2	0	0
8786	53	9,39	907	13	3	0	0
8787	35	10,09	969	14	4	1	0
8788	35	12,63	1213	15	6	0	0
8789	57	13,48	1306	16	5	0	0
8790	59	15,26	1474	18	6	1	0
8791	47	15,72	1514	19	6	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8792	38	17,01	1646	18	7	1	0
8793	58	15,89	1528	19	6	3	0
8794	36	13,48	1306	16	5	0	0
8795	41	15,27	1475	18	6	1	0
8796	42	15,71	1515	18	6	2	0
8797	40	17,04	1647	19	7	1	0
8798	50	15,83	1529	17	6	2	0
8799	59	15,92	1529	18	6	2	0
8800	51	15,92	1530	19	5	2	0
8801	46	15,95	1530	19	6	2	0
8802	51	14,32	1373	21	5	1	0
8803	71	14,34	1373	21	6	1	0
8804	69	19,41	1891	18	5	0	0
8805	68	17,51	1680	19	7	3	0
8806	53	17,51	1680	19	7	3	0
8807	52	10,83	1035	17	5	0	0
8808	80	13,60	1315	17	4	1	0
8809	66	11,60	1107	16	5	3	0
8810	65	10,84	1031	16	5	3	0
8811	71	11,07	1058	15	4	2	0
8812	68	11,41	1101	14	4	0	0
8813	66	11,35	1098	16	3	0	0
8814	43	11,08	1060	15	5	2	0
8815	64	11,96	1153	16	4	0	0
8816	59	11,96	1153	16	4	0	0
8817	54	11,28	1088	12	4	1	0
8818	41	10,49	1019	10	3	1	0
8819	48	11,07	1065	16	5	0	0
8820	44	9,50	907	14	4	2	0
8821	50	12,04	1146	17	6	3	0
8822	52	11,49	1114	13	3	1	0
8823	62	11,49	1114	13	3	1	0
8824	43	9,98	965	12	3	1	0
8825	45	9,51	917	7	4	1	0
8826	50	7,57	744	7	0	0	0
8827	52	6,61	643	5	2	0	0
8828	54	6,63	637	8	3	1	0
8829	65	6,39	615	7	3	0	0
8830	57	6,42	605	10	3	3	0
8831	57	7,19	698	10	1	0	0
8832	29	7,19	698	10	1	0	0
8833	38	8,68	836	10	4	1	0
8834	40	7,35	700	6	5	3	0
8835	21	7,78	739	11	3	3	0
8836	40	9,09	867	9	3	2	0
8837	37	10,05	967	11	4	2	0
8838	33	10,36	995	12	3	2	0
8839	31	9,75	934	14	3	2	0
8840	39	10,20	974	12	5	3	0
8841	39	10,63	1029	11	4	1	0
8842	38	9,89	961	9	3	1	0
8843	54	9,89	961	9	3	1	0
8844	46	5,78	552	10	3	0	0
8845	52	9,86	956	12	3	0	0
8846	62	9,77	942	11	3	1	0
8847	44	9,77	942	11	3	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8848	49	9,12	880	9	2	1	0
8849	49	9,26	891	13	3	1	0
8850	45	9,70	937	10	3	1	0
8851	43	9,12	880	10	5	0	0
8852	35	9,43	912	9	4	1	0
8853	53	9,64	932	13	3	0	0
8854	53	9,14	884	10	3	0	0
8855	40	9,20	892	9	3	0	0
8856	39	9,39	912	10	2	1	0
8857	41	9,54	919	9	3	1	0
8858	45	9,19	884	13	3	1	0
8859	51	6,57	623	13	4	0	0
8860	50	8,28	788	12	4	1	0
8861	46	7,97	769	11	3	0	0
8862	55	8,00	768	11	3	1	0
8863	52	8,07	765	13	3	2	0
8864	48	8,84	848	8	4	2	0
8865	48	8,06	774	11	3	1	0
8866	28	8,02	774	11	3	0	0
8867	37	5,70	547	8	2	0	0
8868	46	6,56	614	10	5	3	0
8869	37	6,81	642	11	3	1	0
UPPER BASAL SALINA Fm.							
8870	43	5,22	489	10	3	1	0
8871	43	6,94	654	12	4	2	0
8872	32	7,81	743	13	4	1	0
8873	17	7,23	693	8	3	1	0
8874	21	7,19	679	6	4	3	0
8875	32	7,33	705	9	3	1	0
8876	26	8,49	816	14	3	0	0
8877	27	11,38	1097	15	4	1	0
8878	21	11,00	1062	13	4	1	0
8879	27	8,99	864	12	5	0	0
8880	43	9,90	962	11	3	0	0
8881	35	10,30	999	11	4	0	0
8882	29	10,05	972	10	3	1	0
8883	30	9,39	906	10	3	2	0
8884	27	10,08	971	10	3	2	0
8885	34	9,70	930	10	4	2	0
8886	31	9,61	929	10	4	1	0
8887	30	9,59	927	11	2	0	0
8888	23	10,35	1003	11	2	2	0
8889	23	9,56	927	11	2	1	0
8890	23	9,39	906	10	3	2	0
8891	25	10,08	971	10	3	2	0
8892	23	9,70	930	10	4	2	0
8893	21	9,60	929	9	4	1	0
8894	23	9,59	927	11	2	0	0
8895	24	10,35	1003	11	2	2	0
8896	37	9,56	927	11	2	1	0
8897	28	9,56	927	11	2	1	0
8898	25	8,21	794	8	2	1	0
8899	43	9,21	894	10	2	1	0
8900	55	10,10	975	11	3	2	0
8901	35	11,24	1087	10	3	2	0
8902	48	6,60	636	9	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8903	27	8,60	838	9	2	0	0
8904	42	9,78	948	10	3	1	0
8905	38	9,94	965	9	2	2	0
8906	60	9,35	912	10	2	0	0
8907	65	8,39	819	8	2	0	0
8908	49	8,39	819	8	2	0	0
8909	40	10,15	976	13	3	1	0
8910	43	10,48	1017	14	2	0	0
8911	34	10,62	1028	14	2	1	0
8912	27	12,29	1184	19	4	0	0
8913	28	9,64	912	20	6	0	0
8914	45	12,32	1182	20	5	0	0
8915	45	12,32	1182	20	5	0	0
8916	35	11,96	1155	18	3	0	0
8917	37	12,13	1165	17	5	1	0
8918	52	11,96	1143	18	5	2	0
8919	43	11,75	1113	19	5	3	0
8920	36	12,36	1176	20	5	3	0
8921	51	12,77	1218	19	5	2	0
8922	41	11,81	1134	20	4	0	0
8923	58	12,77	1218	19	5	2	0
8924	44	11,81	1134	20	4	0	0
8925	55	11,81	1134	20	4	0	0
8926	57	12,77	1218	19	5	2	0
8927	44	11,81	1134	20	4	0	0
8928	38	11,81	1134	20	4	0	0
8929	23	11,09	1067	15	3	1	0
8930	27	9,39	916	8	2	1	0
8931	27	5,03	475	9	3	1	0
8932	25	4,61	425	7	2	0	0
8933	21	5,89	538	16	3	1	0
8934	20	5,84	552	13	2	1	0
8935	24	7,05	677	7	3	2	0
8936	24	6,38	617	7	3	0	0
8937	25	6,29	599	6	3	2	0
8938	25	3,93	370	6	3	1	0
8939	28	6,48	626	5	2	1	0
8940	21	5,73	548	7	2	1	0
8941	25	4,73	447	9	1	1	0
8942	31	4,73	447	9	1	1	0
8943	23	3,79	354	7	2	0	0
8944	19	4,82	444	5	4	2	0
8945	26	5,74	556	5	2	0	0
8946	19	7,40	708	12	4	0	0
8947	20	7,21	690	15	0	1	0
8948	39	7,58	732	10	3	0	0
8949	41	5,72	549	4	3	1	0
8950	41	7,66	722	11	5	2	0
8951	18	9,52	901	17	5	2	0
8952	38	8,22	784	9	4	2	0
8953	34	7,95	751	14	3	1	0
8954	35	4,59	437	7	2	0	0
8955	40	5,72	539	8	3	2	0
8956	34	7,42	706	10	4	2	0
8957	23	7,35	705	9	5	0	0
8958	41	6,72	647	8	4	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
8959	28	6,86	663	8	3	0	0
8960	21	9,49	915	9	4	2	0
8961	18	6,68	647	7	3	0	0
8962	28	6,81	660	7	3	0	0
8963	52	7,23	701	7	2	1	0
8964	19	11,23	1087	15	2	1	0
8965	44	9,55	912	14	4	2	0
8966	27	8,05	778	8	2	1	0
8967	36	7,80	754	9	1	0	0
8968	35	7,93	761	9	3	2	0
8969	43	8,13	775	9	4	3	0
8970	52	7,76	741	7	3	1	0
8971	50	7,73	732	7	4	1	0
8972	34	8,54	822	11	3	1	0
8973	23	9,02	861	11	4	2	0
8974	41	8,54	819	13	3	0	0
8975	36	8,91	850	11	4	3	0
8976	43	8,17	793	9	3	0	0
8977	71	7,36	702	7	4	0	0
8978	24	5,10	477	6	3	2	0
8979	16	5,90	558	8	4	1	0
8980	28	6,56	628	7	3	2	0
8981	15	5,99	574	6	4	0	0
8982	25	4,83	455	8	5	0	0
8983	26	5,70	546	6	5	0	0
8984	26	5,70	546	6	5	0	0
8985	19	5,82	550	8	4	0	0
8986	17	5,79	535	9	5	2	0
8987	24	3,63	314	11	4	1	0
8988	23	3,36	308	8	5	0	0
8989	20	3,42	301	9	5	2	0
8990	20	3,43	286	12	5	2	0
8991	40	3,44	286	12	4	3	0
8992	50	5,29	485	9	5	2	0
8993	56	5,27	475	11	4	4	0
8994	0	22,81	2148	31	14	8	0
8995	32	21,49	2067	19	11	2	0
8996	25	15,22	1450	17	6	4	0
8997	22	14,97	1416	26	6	2	0
8998	32	15,07	1442	17	6	2	0
8999	25	12,54	1197	14	5	2	0
9000	27	10,48	989	11	8	2	0
9001	23	12,70	1196	18	6	4	0
9002	26	10,78	1002	19	6	2	0
9003	21	8,96	824	15	6	4	0
9004	22	7,30	642	19	8	4	0
9005	18	9,75	907	13	6	4	0
9006	19	8,15	765	7	6	4	0
9007	19	7,26	676	8	5	4	0
9008	14	7,68	718	8	5	4	0
9009	21	7,68	718	8	5	4	0
9010	14	7,23	670	11	3	6	0
9011	12	7,94	735	11	4	5	0
9012	20	7,46	671	13	7	2	0
9013	17	6,43	572	13	7	5	0
9014	21	10,08	932	18	8	3	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9015	19	10,74	979	10	7	10	0
9016	16	9,82	900	7	3	9	0
9017	18	9,35	888	9	6	1	0
9018	18	8,24	769	11	9	0	0
9019	15	11,43	1053	9	10	7	0
9020	19	9,51	912	17	3	0	0
9021	16	10,00	949	14	3	5	0
9022	12	7,83	730	9	3	8	0
9023	16	12,89	1220	16	7	5	0
9024	17	10,54	986	15	7	0	0
9025	20	10,96	983	23	9	9	0
9026	21	10,10	942	13	6	4	0
9027	7	13,50	1269	20	6	8	0
9028	22	15,96	1500	22	5	9	0
9029	22	15,96	1510	22	8	4	0
9030	16	15,93	1495	23	9	5	0
9031	26	11,69	1107	15	9	1	0
9032	21	11,04	1054	18	4	0	0
9033	30	9,10	852	15	6	4	0
9034	39	13,06	1240	23	5	1	0
9035	41	17,68	1687	28	6	4	0
9036	25	11,18	1066	12	6	4	0
9037	29	12,04	1097	11	7	0	0
9038	24	11,55	1092	14	6	4	0
9039	27	12,29	1170	22	3	1	0
9040	27	12,25	1172	20	5	0	0
9041	29	12,01	1128	23	9	2	0
9042	37	10,70	1011	13	5	4	0
9043	26	12,25	1165	15	3	1	0
9044	38	13,12	1217	18	6	4	0
9045	40	12,70	1199	19	7	5	0
9046	50	13,67	1287	21	9	5	0
9047	37	13,62	1285	23	8	4	0
9048	40	13,14	1252	20	7	1	0
9049	33	12,93	1211	12	9	6	0
9050	33	12,44	1125	16	16	8	0
9051	34	10,58	979	10	8	4	0
9052	43	10,00	957	11	2	3	0
9053	38	12,43	1200	12	4	0	0
9054	43	12,47	1179	12	5	3	0
9055	47	12,36	1164	15	10	0	0
9056	55	14,77	1427	16	8	0	0
9057	36	12,92	1228	19	11	0	0
9058	38	11,74	1120	19	6	1	0
9059	39	12,39	1184	14	11	0	0
9060	35	14,65	1402	17	8	1	0
9061	36	14,79	1401	24	5	0	0
9062	25	10,88	1001	24	7	3	0
9063	32	10,61	984	23	4	2	0
9064	23	10,03	931	21	6	3	0
9065	30	11,21	1004	22	10	2	0
9066	35	12,48	1178	20	6	3	0
9067	29	12,22	1138	21	5	3	0
9068	20	14,67	1383	22	7	0	0
9069	22	18,48	1730	24	9	4	0
9070	24	12,97	1234	20	6	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9071	17	8,03	763	15	2	2	0
9072	21	10,26	956	14	6	1	0
9073	25	10,40	984	16	6	2	0
9074	17	10,39	974	15	6	2	0
9075	26	9,98	942	14	6	3	0
9076	33	10,73	1010	16	6	4	0
9077	23	10,45	979	20	11	0	0
9078	17	9,84	935	15	4	1	0
9079	19	10,27	966	12	8	3	0
9080	18	9,63	908	10	7	2	0
9081	17	5,97	551	12	5	3	0
9082	18	5,90	551	10	5	2	0
9083	20	5,97	560	11	5	0	0
9084	20	9,13	872	11	5	1	0
9085	24	10,24	981	13	6	1	0
9086	22	11,58	1090	17	6	4	0
9087	19	11,38	1089	14	6	2	0
9088	15	8,63	822	10	3	1	0
9089	28	7,70	732	11	4	2	0
9090	25	8,39	797	12	5	1	0
9091	25	10,52	1011	13	4	2	0
9092	23	7,99	772	6	2	2	0
9093	23	8,89	841	15	5	2	0
9094	26	9,61	929	12	4	0	0
9095	25	10,24	980	13	5	1	0
9096	27	9,45	910	12	5	0	0
9097	22	9,04	858	9	7	2	0
9098	26	8,63	822	13	5	0	0
9099	25	9,11	865	12	5	1	0
9100	20	10,04	962	14	5	0	0
9101	20	10,00	950	14	5	2	0
9102	20	8,07	774	14	3	0	0
9103	19	6,66	629	9	5	2	0
9104	19	6,52	622	8	3	2	0
9105	20	6,40	596	12	3	2	0
9106	18	5,71	544	10	2	1	0
9107	22	5,71	544	10	2	1	0
9108	19	5,51	513	9	4	2	0
9109	20	7,77	742	11	3	1	0
9110	19	5,80	551	9	2	1	0
9111	22	4,99	473	10	3	0	0
9112	21	6,17	592	9	2	1	0
9113	18	6,17	592	9	2	1	0
9114	19	5,49	520	6	4	2	0
9115	20	5,17	488	9	2	1	0
9116	19	4,95	460	11	3	2	0
9117	20	5,45	518	8	2	1	0
9118	18	5,39	512	7	4	0	0
9119	19	8,35	810	8	4	0	0
9120	17	8,35	810	8	4	0	0
9121	18	7,95	757	9	4	1	0
9122	34	5,89	560	10	4	0	0
9123	21	8,88	853	11	3	2	0
9124	19	8,60	820	10	4	2	0
9125	22	7,40	717	5	4	1	0
9126	17	6,79	656	8	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9127	21	7,43	701	9	3	3	0
9128	35	7,71	723	10	3	4	0
9129	32	8,82	850	11	2	1	0
9130	23	9,65	926	13	3	1	0
9131	18	9,84	954	9	5	0	0
9132	19	8,24	794	10	3	0	0
9133	17	8,65	837	11	3	0	0
9134	22	7,71	738	10	3	1	0
9135	18	6,31	603	7	3	2	0
9136	21	4,90	470	6	2	1	0
9137	22	6,27	597	8	3	1	0
9138	23	6,19	586	7	5	1	0
9139	10	8,28	796	9	3	2	0
9140	9	8,28	796	9	3	2	0
9141	17	8,53	806	14	4	2	0
9142	25	9,06	865	13	4	2	0
9143	21	9,60	912	13	5	1	0
9144	26	10,31	993	13	4	1	0
9145	28	9,27	899	9	3	1	0
9146	21	8,50	816	9	4	2	0
9147	25	7,94	766	9	3	0	0
9148	25	8,30	795	11	3	1	0
9149	25	8,68	824	12	3	2	0
9150	21	10,58	1022	12	4	1	0
9151	21	10,67	1037	8	3	0	0
9152	30	10,11	979	9	3	2	0
9153	10	8,67	835	8	5	1	0
9154	28	11,69	1141	11	3	0	0
9155	23	10,48	1005	16	4	1	0
9156	22	7,21	682	14	5	0	0
9157	23	9,97	959	11	4	1	0
9158	23	12,22	1177	13	5	2	0
9159	18	13,72	1318	17	5	1	0
9160	20	11,88	1143	15	4	1	0
9161	28	10,74	1032	10	5	2	0
9162	23	11,54	1112	10	5	3	0
9163	24	9,40	911	7	2	1	0
9164	22	8,79	846	10	3	0	0
9165	37	8,51	819	11	2	1	0
9166	25	9,06	876	6	3	2	0
9167	32	9,68	935	8	3	2	0
9168	24	10,02	970	10	4	0	0
9169	20	7,78	744	8	2	3	0
9170	29	7,85	755	8	3	1	0
9171	20	8,17	787	8	3	2	0
9172	24	9,09	876	10	3	2	0
9173	18	8,61	839	9	2	0	0
9174	23	8,09	783	8	3	1	0
9175	21	9,72	941	11	4	0	0
9176	21	8,93	871	9	2	0	0
9177	26	5,20	500	8	2	0	0
9178	28	6,29	600	9	2	1	0
9179	24	11,39	1104	13	3	1	0
9180	21	11,61	1118	14	4	1	0
9181	24	12,55	1206	16	2	1	0
9182	21	9,20	1017	11	1	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9183	90	6,66	652	3	1	1	0
9184	33	7,74	740	9	3	2	0
9185	41	10,56	1021	10	4	2	0
9186	23	5,88	564	5	3	2	0
9187	15	6,65	642	10	2	0	0
9188	22	6,62	630	9	3	0	0
9189	23	6,28	599	9	2	2	0
9190	21	4,68	439	6	4	2	0
9191	19	7,86	745	7	5	3	0
9192	22	7,92	756	8	4	2	0
9193	20	6,11	588	8	2	0	0
9194	23	6,02	588	5	2	0	0
9195	26	5,83	565	7	2	0	0
9196	21	4,73	452	7	3	0	0
9197	18	5,42	511	8	2	1	0
9198	21	5,42	511	8	2	1	0
9199	21	5,34	508	6	3	2	0
9200	16	5,39	514	7	2	2	0
9201	17	4,35	412	6	2	1	0
9202	17	4,40	419	5	3	1	0
9203	18	5,41	513	5	3	2	0
9204	19	6,88	661	6	2	1	0
9205	17	6,88	661	6	2	1	0
9206	25	8,73	845	7	3	1	0
9207	14	13,52	1306	12	5	2	0
9208	19	13,52	1306	12	5	2	0
9209	15	6,60	635	7	2	1	0
9210	20	5,85	562	8	2	1	0
9211	21	5,52	522	8	3	1	0
9212	21	4,72	442	6	3	1	0
9213	22	4,73	451	5	2	1	0
9214	34	4,11	385	6	3	0	0
9215	19	6,44	621	5	5	0	0
9216	18	6,60	634	8	3	0	0
9217	34	6,49	625	5	3	2	0
9218	23	6,55	638	5	3	0	0
9219	21	15,11	1457	18	4	3	0
9220	24	14,54	1400	18	4	3	0
9221	25	12,12	1245	16	4	3	0
9222	22	7,99	762	11	3	2	0
9223	39	7,16	689	7	3	1	0
9224	25	5,83	557	6	2	2	0
9225	32	4,88	464	6	2	2	0
9226	22	5,96	564	9	2	2	0
9227	21	6,16	587	7	2	2	0
9228	27	6,11	585	4	3	2	0
9229	23	6,66	640	10	3	0	0
9230	23	7,18	683	7	3	3	0
9231	34	5,04	486	5	2	1	0
9232	24	4,68	446	5	2	1	0
9233	28	4,79	459	4	2	1	0
9234	30	5,35	494	6	3	2	0
9235	27	3,38	308	6	3	1	0
9236	29	5,44	522	7	2	0	0
9237	31	5,38	518	4	2	1	0
9238	21	5,35	514	7	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9239	25	5,17	499	5	2	0	0
9240	28	5,21	492	7	2	2	0
9241	22	4,87	464	6	2	2	0
9242	23	5,09	485	5	3	1	0
9243	26	3,90	367	6	2	1	0
9244	21	4,82	466	6	2	0	0
9245	23	5,01	477	5	3	1	0
9246	21	5,03	475	5	3	2	0
9247	22	4,93	479	5	2	0	0
9248	18	4,79	455	7	3	1	0
9249	28	4,83	458	7	2	1	0
9250	27	4,83	458	7	2	1	0
9251	20	6,01	585	6	2	0	0
9252	26	6,01	585	6	2	0	0
9253	23	6,01	585	6	2	0	0
9254	30	5,46	521	7	2	1	0
9255	26	5,41	517	7	3	0	0
9256	24	5,40	515	7	2	1	0
9257	25	5,25	502	6	2	2	0
9258	24	5,27	501	6	3	2	0
9259	27	5,32	509	8	2	0	0
9260	40	5,88	562	6	3	1	0
9261	28	6,46	618	9	3	1	0
9262	24	6,13	597	4	2	1	0
9263	25	5,72	556	6	2	0	0
9264	24	5,44	527	6	1	0	0
9265	21	5,61	543	5	2	0	0
9266	21	5,50	530	6	2	1	0
9267	31	4,36	411	5	2	2	0
9268	26	4,28	405	4	2	2	0
9269	27	5,05	481	5	2	2	0
9270	23	3,87	373	5	2	0	0
9271	26	4,05	384	5	3	0	0
9272	26	4,05	384	5	3	0	0
9273	26	4,05	384	5	3	0	0
9274	23	4,04	380	5	2	2	0
9275	26	3,73	350	4	2	2	0
9276	27	2,33	219	3	2	1	0
9277	22	8,88	865	1	1	0	0
9278	32	11,85	1155	10	3	1	0
9279	27	13,88	1344	15	5	1	0
9280	24	25,16	2445	26	8	0	0
9281	30	39,45	3844	39	11	0	0
9282	28	39,99	3896	39	10	1	0
9283	34	31,42	3051	31	9	2	0
9284	27	27,93	2710	28	8	2	0
9285	43	23,19	2261	21	6	1	0
9286	32	13,58	1320	14	4	1	0
9287	33	9,22	887	11	3	2	0
9288	34	7,56	728	9	2	1	0
9289	30	6,57	627	7	2	2	0
9290	22	6,96	671	7	3	1	0
9291	28	7,19	691	9	3	1	0
9292	18	7,96	757	11	3	2	0
9293	31	7,67	734	10	3	2	0
9294	19	8,30	800	10	3	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9295	27	9,55	927	11	3	0	0
9296	27	7,59	732	10	2	0	0
9297	26	6,67	637	8	3	1	0
9298	40	6,68	641	9	4	0	0
9299	27	4,59	439	6	2	1	0
9300	2	3,60	343	4	1	2	0
9301	18	4,08	381	4	2	3	0
9302	18	4,41	419	5	2	1	0
9303	18	4,06	389	6	1	0	0
9304	23	4,62	430	9	2	1	0
9305	19	4,73	450	6	2	1	0
9306	21	4,87	469	5	2	1	0
9307	21	5,14	491	6	3	1	0
9308	20	5,16	499	4	1	2	0
9309	21	5,53	531	7	2	1	0
9310	20	5,43	520	6	2	1	0
9311	19	5,18	502	6	2	0	0
9312	20	6,35	604	8	2	2	0
9313	26	5,82	550	9	3	2	0
9314	21	5,42	520	5	2	1	0
9315	23	6,12	582	6	3	2	0
9316	21	5,89	561	7	3	2	0
9317	1	6,69	636	10	3	1	0
9318	32	7,41	710	10	2	1	0
9319	27	8,13	784	9	2	1	0
9320	34	8,87	858	9	2	1	0
9321	31	9,20	897	8	3	0	0
9322	51	8,20	797	6	3	0	0
9323	23	6,42	622	4	2	1	0
9324	25	9,68	937	12	2	0	0
9325	26	10,12	984	9	3	0	0
9326	26	8,40	808	7	3	2	0
9327	26	7,46	717	7	2	2	0
9328	28	8,29	799	8	3	2	0
9329	31	9,34	906	7	3	1	0
9330	29	8,11	784	8	2	2	0
9331	34	7,25	702	6	3	1	0
9332	27	6,31	612	6	3	0	0
9333	30	7,61	736	9	2	1	0
9334	51	8,11	774	8	3	3	0
9335	31	8,12	784	9	3	1	0
9336	36	9,64	931	10	3	1	0
9337	29	10,45	1011	11	4	1	0
9338	20	11,81	1148	14	3	0	0
9339	22	9,04	877	7	4	0	0
9340	22	9,04	877	7	4	0	0
9341	22	9,04	877	7	4	0	0
9342	22	9,04	877	7	4	0	0
9343	28	7,10	686	7	3	1	0
9344	29	7,72	737	9	3	3	0
9345	23	7,79	740	9	3	3	0
9346	25	7,63	724	9	3	3	0
9347	30	7,50	717	8	3	2	0
9348	22	7,59	726	8	3	3	0
9349	32	6,86	662	7	3	1	0
9350	26	6,52	623	9	2	1	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9351	25	6,46	618	7	3	1	0
9352	31	5,60	538	5	2	1	0
9353	25	5,32	514	5	2	0	0
9354	30	5,46	524	7	2	1	0
9355	31	5,60	536	7	3	0	0
9356	29	5,71	551	6	2	1	0
9357	24	5,79	557	7	2	1	0
9358	29	6,08	585	8	2	1	0
9359	34	6,69	646	8	2	1	0
9360	28	6,60	635	7	2	1	0
9361	35	6,40	620	6	2	1	0
9362	41	6,27	602	9	2	1	0
9363	31	6,20	595	7	2	2	0
9364	27	5,03	476	6	2	2	0
9365	29	4,27	407	6	2	1	0
9366	40	5,50	530	6	2	1	0
9367	32	5,83	560	8	2	1	0
9368	31	5,84	552	7	3	2	0
9369	30	6,06	574	9	3	1	0
9370	38	6,24	587	10	3	2	0
9371	37	5,91	558	8	3	2	0
9372	21	5,21	491	6	3	2	0
9373	55	9,79	940	13	3	2	0
9374	43	9,77	943	11	4	0	0
9375	38	7,87	763	7	3	1	0
9376	29	9,73	946	5	4	2	0
9377	34	11,86	1154	9	3	1	0
9378	28	14,61	1420	12	3	2	0
9379	26	13,01	1260	12	3	2	0
9380	29	13,87	1350	16	3	0	0
9381	27	15,37	1491	17	3	2	0
9382	23	22,75	2205	27	8	0	0
9383	26	24,35	2367	26	8	0	0
9384	26	22,95	2226	25	9	0	0
9385	26	18,29	1770	22	7	0	0
9386	32	18,23	1770	22	5	0	0
9387	24	15,13	1463	18	4	1	0
9388	26	14,81	1430	19	5	1	0
9389	25	12,48	1203	15	4	1	0
9390	23	19,98	1929	25	5	2	0
9391	25	13,72	1322	17	3	1	0
9392	33	11,48	1107	16	2	1	0
9393	36	8,20	785	15	3	0	0
9394	26	8,53	818	15	3	0	0
9395	29	8,93	856	16	3	0	0
9396	32	8,89	854	13	3	1	0
9397	23	8,87	861	10	3	0	0
9398	24	8,87	861	10	3	0	0
9399	24	8,84	851	12	3	1	0
9400	24	8,99	871	11	3	0	0
9401	29	8,77	838	11	3	3	0
9402	25	8,89	849	13	2	2	0
9403	23	6,93	664	13	2	0	0
9404	6	6,53	624	13	2	0	0
9405	60	9,45	914	12	2	0	0
9406	58	9,48	917	12	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9407	46	8,82	851	10	2	2	0
9408	63	8,32	807	9	2	1	0
9409	55	7,96	763	8	3	3	0
9410	59	7,94	773	7	3	0	0
9411	57	8,37	813	9	3	0	0
9412	65	8,62	825	10	3	2	0
9413	71	9,50	918	13	3	0	0
9414	79	9,50	918	13	3	0	0
9415	66	9,70	928	11	3	2	0
9416	74	10,27	997	10	3	1	0
9417	39	10,64	1036	11	3	0	0
9418	32	11,42	1106	13	2	1	0
9419	38	10,20	991	13	2	0	0
9420	38	11,40	1104	17	2	0	0
9421	46	11,40	1104	17	2	0	0
9422	67	10,93	1051	15	3	1	0
9423	47	10,40	1007	14	3	0	0
9424	72	9,94	957	12	3	0	0
9425	74	9,84	947	12	3	1	0
9426	62	9,87	950	12	3	1	0
9427	87	9,86	947	13	3	1	0
9428	72	9,84	943	14	3	0	0
9429	74	10,21	977	14	3	3	0
9430	75	10,57	1008	15	4	3	0
9431	79	10,86	1039	16	4	2	0
9432	85	10,70	1023	16	4	2	0
9433	48	10,27	989	13	4	1	0
9434	39	10,30	992	13	4	1	0
9435	36	9,93	952	13	4	2	0
9436	60	9,43	905	13	4	1	0
9437	71	9,57	920	14	3	1	0
9438	54	9,25	888	12	3	1	0
9439	72	7,96	764	11	3	0	0
9440	72	6,20	585	11	3	1	0
9441	57	5,67	540	12	2	0	0
9442	61	6,39	614	11	2	0	0
9443	36	6,38	613	9	2	1	0
9444	40	6,69	646	8	2	1	0
9445	42	6,86	663	8	2	1	0
9446	41	7,32	706	10	3	0	0
9447	37	7,94	764	10	3	1	0
9448	37	8,47	815	11	3	1	0
9449	75	8,53	821	11	3	1	0
9450	58	8,65	832	12	3	1	0
9451	75	9,57	921	13	2	1	0
9452	43	9,43	903	13	2	2	0
9453	36	8,92	853	13	3	2	0
9454	42	8,41	808	10	3	2	0
9455	32	8,15	788	12	2	0	0
9456	36	7,96	766	10	3	1	0
9457	58	8,03	770	10	3	2	0
9458	41	8,82	850	7	3	2	0
9459	57	8,89	858	10	2	2	0
9460	53	8,55	832	8	2	1	0
9461	47	8,30	810	8	2	0	0
9462	51	7,81	759	9	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9463	60	6,59	636	8	2	0	0
9464	65	5,02	480	7	2	0	0
9465	64	6,23	600	8	2	0	0
9466	1	6,53	630	8	2	0	0
9467	67	9,39	911	11	3	0	0
9468	28	9,29	903	10	3	0	0
9469	26	10,69	1039	12	3	0	0
9470	28	10,70	1035	11	3	2	0
9471	29	10,67	1035	11	2	2	0
9472	45	8,33	792	10	3	2	0
9473	36	13,80	1349	14	2	0	0
9474	30	16,01	1567	16	2	0	0
9475	29	13,42	1295	17	2	2	0
9476	31	9,38	909	13	2	0	0
9477	37	8,77	846	10	2	2	0
9478	36	8,65	833	11	2	2	0
9479	36	8,61	838	10	2	0	0
9480	41	8,91	857	12	2	1	0
9481	26	7,97	768	9	2	2	0
9482	30	7,97	768	9	2	2	0
9483	32	7,97	768	9	2	2	0
9484	33	7,61	737	9	3	0	0
9485	35	7,25	699	8	3	0	0
9486	29	7,32	702	6	3	2	0
9487	32	7,65	732	8	3	2	0
9488	32	6,95	675	8	2	0	0
9489	33	6,73	644	5	2	2	0
9490	32	6,61	632	9	2	2	0
9491	33	7,93	752	12	3	2	0
9492	28	7,62	738	9	3	0	0
9493	36	7,64	734	8	3	2	0
9494	31	9,58	926	13	3	0	0
9495	29	16,02	1544	20	4	2	0
9496	30	15,60	1513	20	4	0	0
9497	30	15,60	1513	20	4	0	0
9498	24	10,51	1001	14	4	2	0
9499	23	10,51	1001	14	4	2	0
9500	28	8,24	794	8	3	1	0
9501	34	8,43	804	11	3	2	0
9502	34	8,43	804	11	3	2	0
9503	27	7,45	710	11	3	1	0
9504	32	8,97	858	11	3	2	0
9505	23	8,51	823	11	3	0	0
9506	31	8,24	794	12	3	0	0
9507	35	8,13	785	11	3	0	0
9508	28	7,98	770	9	3	1	0
9509	31	8,35	791	12	3	2	0
9510	43	8,03	768	11	3	1	0
9511	33	7,73	747	10	3	0	0
9512	31	14,74	1422	21	4	0	0
9513	30	16,17	1563	22	4	1	0
9514	31	10,01	956	13	4	2	0
9515	31	9,02	874	11	3	0	0
9516	29	10,45	1017	11	3	0	0
9517	32	12,04	1172	13	3	0	0
9518	33	13,23	1281	15	3	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9519	32	12,85	1253	13	3	0	0
9520	33	11,38	1103	15	3	0	0
9521	35	10,69	1037	13	3	0	0
9522	32	10,39	998	14	3	1	0
9523	36	10,10	971	13	3	1	0
9524	38	9,20	888	12	4	0	0
9525	36	8,75	845	12	3	0	0
9526	36	8,34	804	12	3	0	0
9527	35	8,91	859	11	3	1	0
9528	39	9,44	914	12	3	0	0
9529	41	9,10	873	10	3	3	0
9530	39	9,87	954	14	3	0	0
9531	32	11,65	1126	15	3	1	0
9532	28	11,14	1086	9	3	1	0
9533	31	9,63	924	9	3	3	0
9534	30	9,16	881	13	3	0	0
9535	42	8,29	801	11	3	0	0
9536	31	8,01	763	12	2	2	0
9537	25	7,65	734	10	2	1	0
9538	27	7,40	718	9	2	0	0
9539	31	7,47	718	11	2	1	0
9540	29	6,42	619	8	3	0	0
9541	26	7,05	675	12	3	0	0
9542	31	7,25	692	10	3	1	0
9543	32	7,52	717	9	3	1	0
9544	31	7,52	717	9	3	1	0
9545	33	7,36	713	4	2	2	0
9546	32	7,66	738	9	3	0	0
9547	31	7,30	703	10	2	0	0
9548	45	7,60	731	9	2	1	0
9549	33	6,70	646	9	3	0	0
9550	27	6,41	615	8	3	1	0
9551	32	7,62	734	11	3	0	0
9552	35	7,62	730	13	3	0	0
9553	24	7,58	725	12	3	1	0
9554	31	7,54	715	11	3	2	0
9555	28	8,55	818	12	3	1	0
9556	52	9,00	863	12	3	1	0
9557	43	7,09	686	10	2	0	0
9558	32	8,75	852	10	2	0	0
9559	29	8,88	854	10	2	2	0
9560	5	8,05	788	9	0	0	0
9561	22	6,83	664	9	1	0	0
9562	33	10,72	1033	13	3	2	0
9563	26	11,94	1153	14	3	1	0
9564	21	11,66	1125	14	3	2	0
9565	26	9,75	935	14	4	1	0
9566	24	9,72	935	14	3	1	0
9567	31	8,82	848	12	2	2	0
9568	25	9,47	906	14	2	1	0
9569	27	10,77	1041	13	2	1	0
9570	34	12,57	1215	15	3	1	0
9571	29	12,57	1215	15	3	1	0
9572	25	11,52	1109	15	2	2	0
9573	26	10,85	1044	16	2	1	0
9574	27	17,78	1729	27	0	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9575	27	18,34	1762	28	4	2	0
9576	27	18,07	1736	26	5	2	0
9577	33	13,58	1296	25	5	1	0
9578	21	9,40	905	13	3	0	0
9579	27	9,06	881	11	2	0	0
9580	24	8,99	856	12	4	2	0
9581	30	9,06	879	12	2	0	0
9582	23	9,06	879	12	2	0	0
9583	21	7,43	728	4	3	0	0
9584	31	7,10	687	8	2	0	0
9585	39	6,58	638	8	2	0	0
9586	30	6,63	631	8	4	2	0
9587	34	6,61	633	9	3	1	0
9588	21	7,73	756	5	3	0	0
9589	23	7,77	754	10	2	0	0
9590	25	7,95	776	10	1	0	0
9591	22	8,71	837	10	2	2	0
9592	25	8,17	782	9	3	2	0
9593	22	8,29	809	8	2	0	0
9594	32	7,69	737	8	4	2	0
9595	24	6,63	630	10	3	1	0
9596	25	10,23	984	13	3	2	0
9597	22	9,35	895	13	2	2	0
9598	21	7,70	746	9	3	0	0
9599	20	8,63	823	12	4	2	0
9600	27	10,57	1019	14	2	2	0
9601	19	10,57	1019	14	2	2	0
9602	27	18,74	1800	35	4	0	0
9603	31	16,95	1615	29	5	3	0
9604	26	9,70	927	17	2	0	0
9605	35	6,88	665	8	2	1	0
9606	30	8,86	844	13	3	3	0
9607	27	8,48	825	10	2	0	0
9608	31	8,36	815	7	3	0	0
9609	25	8,48	804	14	3	3	0
9610	20	9,03	883	8	2	0	0
9611	24	9,37	897	12	4	2	0
9612	21	9,33	897	12	4	1	0
9613	26	10,04	971	14	3	0	0
9614	25	15,00	1444	24	2	1	0
9615	23	18,59	1791	31	2	2	0
9616	25	12,90	1251	15	3	1	0
9617	26	12,90	1251	15	3	1	0
9618	29	9,01	863	15	4	0	0
9619	39	9,20	895	14	0	0	0
9620	27	9,20	895	14	0	0	0
9621	40	9,18	888	12	3	0	0
9622	43	9,52	902	14	4	3	0
9623	45	9,35	903	11	2	2	0
9624	31	9,32	916	9	0	0	0
9625	38	9,30	894	15	2	0	0
9626	31	9,10	886	12	1	0	0
9627	32	8,67	854	7	0	0	0
9628	34	8,57	820	14	3	0	0
9629	31	8,23	793	10	3	1	0
9630	36	7,04	669	11	3	2	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9631	29	6,82	643	10	5	2	0
9632	30	8,10	772	11	4	2	0
9633	34	8,51	812	10	5	2	0
9634	24	8,08	780	11	3	0	0
9635	21	7,90	757	11	5	0	0
9636	21	7,88	757	11	4	0	0
9637	23	5,09	489	6	2	0	0
9638	15	8,46	822	9	3	0	0
9639	57	10,10	979	11	4	0	0
9640	38	9,87	957	12	3	0	0
9641	41	9,67	927	12	4	2	0
9642	53	9,31	891	10	4	3	0
9643	35	8,33	783	12	5	4	0
9644	31	10,16	976	15	2	1	0
9645	38	9,82	926	17	4	2	0
9646	38	8,71	829	13	3	2	0
9647	22	9,52	920	13	2	0	0
9648	35	9,82	941	14	3	1	0
9649	33	9,71	935	12	4	1	0
9650	21	10,01	960	16	3	0	0
9651	33	9,68	930	19	0	1	0
9652	35	9,64	925	13	3	2	0
9653	32	9,71	939	11	3	0	0
9654	30	10,06	961	13	4	1	0
9655	50	9,13	871	14	5	0	0
9656	37	9,15	871	15	5	0	0
9657	37	13,37	1280	24	5	0	0
9658	64	13,38	1285	25	3	0	0
9659	55	12,87	1247	15	2	2	0
9660	41	12,54	1209	22	2	0	0
9661	30	12,49	1204	18	2	0	0
9662	28	11,57	1134	10	2	0	0
9663	29	11,33	1100	12	3	1	0
9664	26	11,22	1091	14	2	0	0
9665	27	11,58	1122	17	2	0	0
9666	26	11,70	1125	20	2	1	0
9667	27	10,89	1055	16	2	0	0
9668	28	10,93	1055	16	2	1	0
9669	25	10,82	1050	15	2	0	0
9670	32	7,57	720	14	3	1	0
9671	31	7,44	719	11	2	0	0
9672	32	7,90	764	10	3	0	0
9673	36	3,41	301	12	4	1	0
9674	32	7,93	754	13	3	1	0
9675	36	8,31	800	14	2	0	0
9676	41	8,57	814	12	4	2	0
9677	38	9,00	847	15	3	1	0
9678	39	8,70	848	15	3	1	0
9679	37	8,85	849	16	2	0	0
9680	46	8,87	870	9	0	0	0
9681	36	8,91	859	15	2	0	0
9682	31	8,42	794	16	3	1	0
9683	36	6,98	651	18	4	1	0
9684	40	9,11	869	19	3	0	0
BALCONES Fm.							
9685	31	8,10	777	14	3	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9686	20	7,48	719	13	2	0	0
9687	32	8,07	779	11	3	0	0
9688	30	8,07	779	11	3	0	0
9689	32	5,33	504	10	4	0	0
9690	29	5,31	504	9	4	0	0
9691	35	6,82	645	8	3	2	0
9692	44	7,62	734	9	3	1	0
9693	34	8,00	759	10	3	2	0
9694	25	8,10	779	10	2	0	0
9695	34	7,85	756	9	2	2	0
9696	24	8,07	774	10	3	2	0
9697	28	8,17	781	12	4	1	0
9698	29	9,13	870	13	2	2	0
9699	23	9,41	905	17	2	0	0
9700	27	9,89	959	12	3	0	0
9701	47	10,17	990	10	2	1	0
9702	23	10,07	976	11	4	0	0
9703	32	9,65	925	11	2	3	0
9704	45	8,68	843	14	0	0	0
9705	39	7,62	735	15	0	0	0
9706	41	8,68	836	16	1	0	0
9707	43	8,67	836	12	2	0	0
9708	56	8,73	836	16	3	0	0
9709	40	8,67	836	12	2	0	0
9710	31	7,87	755	13	3	0	0
9711	34	4,84	444	12	4	1	0
9712	27	7,16	670	10	5	2	0
9713	25	8,91	842	15	4	2	0
9714	31	8,87	828	17	5	2	0
9715	31	8,75	828	16	4	0	0
9716	32	8,60	830	9	5	0	0
9717	32	9,01	861	16	4	0	0
9718	25	9,11	871	14	4	1	0
9719	40	9,30	889	16	3	1	0
9720	38	8,59	830	10	4	0	0
9721	35	7,64	736	11	3	0	0
9722	48	7,51	718	13	1	2	0
9723	33	7,60	724	11	2	3	0
9724	31	7,53	722	9	4	1	0
9725	38	7,54	722	9	3	2	0
9726	31	7,57	731	10	3	0	0
9727	26	6,97	677	6	2	0	0
9728	44	6,73	655	7	2	0	0
9729	35	7,82	752	8	3	2	0
9730	27	7,75	742	8	3	2	0
9731	27	7,84	751	8	3	2	0
9732	30	7,97	776	7	3	0	0
9733	42	7,97	776	7	3	0	0
9734	35	7,97	774	8	3	0	0
9735	40	7,73	760	7	0	0	0
9736	33	7,89	768	10	1	0	0
9737	36	7,97	770	12	2	0	0
9738	31	7,76	753	10	2	0	0
9739	35	7,80	760	8	2	0	0
9740	38	7,68	733	13	3	0	0
9741	33	7,88	761	12	2	0	0

DEPTH	R.O.P.	T. GAS	CHROMATOGRAPHY (ppm)				
ft.	ft/h.	units	C1	C2	C3	C4	C5
9742	42	7,52	724	11	3	0	0
9743	29	7,05	679	10	3	0	0
9744	44	8,01	776	9	2	1	0
9745	43	8,20	795	9	2	1	0
9746	34	8,10	779	12	2	1	0
9747	45	8,04	768	15	2	1	0
9748	33	8,82	849	10	3	2	0
9749	30	8,83	850	10	3	1	0
9750	32	8,60	828	11	2	1	0
9751	36	8,34	804	8	3	2	0
9752	123	8,34	804	8	3	2	0
9753	32	6,37	614	6	2	2	0
9754	33	6,46	590	13	4	2	0
9755	40	6,31	595	10	4	2	0
9756	26	5,25	500	9	2	1	0
9757	39	5,93	564	8	4	1	0
9758	46	6,25	602	8	3	0	0
9759	24	5,85	567	5	2	1	0
9760	35	5,79	548	7	4	2	0
9761	29	5,62	538	5	3	2	0
9762	35	5,43	521	5	2	2	0
9763	33	5,99	575	5	3	2	0
9764	23	6,11	590	5	3	1	0
9765	41	5,96	573	6	2	2	0
9766	30	5,65	547	5	2	1	0
9767	36	5,65	547	5	2	1	0
9768	33	5,14	492	7	2	1	0
9769	38	4,06	376	5	5	2	0
9770	32	4,93	467	4	3	3	0
9771	35	6,20	602	7	2	0	0
9772	30	6,20	602	7	2	0	0
9773	74	4,66	447	6	3	0	0
9774	37	5,61	534	9	4	0	0
9775	36	6,25	593	9	2	2	0
9776	34	6,41	608	8	3	2	0
9777	34	6,32	603	7	2	2	0
9778	30	5,12	489	8	3	0	0
9779	25	6,31	606	11	2	0	0
9780	26	6,68	642	10	3	0	0
9781	44	4,72	448	9	3	0	0
9782	40	4,85	448	10	3	3	0
9783	35	5,72	540	11	2	2	0
9784	37	5,75	549	10	3	0	0
9785	45	6,46	623	10	2	0	0
9786	35	6,01	578	8	3	0	0
9787	23	5,77	549	9	3	0	0
9788	28	5,99	569	8	3	0	0
9789	22	7,28	702	8	3	1	0
9790	27	7,51	719	9	3	0	0
9791	28	7,51	726	4	4	2	0
9792	28	8,73	851	9	2	0	0
9793	34	8,51	834	5	3	0	0
9794	31	9,18	897	7	3	0	0
9795	32	12,37	1194	18	4	0	0
9796	25	11,04	1068	12	4	0	0
9797	25	8,62	831	10	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
9798	29	6,99	668	10	2	2	0
9799	38	6,58	624	10	2	2	0
9800	38	6,58	624	10	2	2	0

T.G.T - LAB
REGISTROS GEOLÓGICOS

FLUORESCENCE DATA RECORD

WELL: LO6-26XD

SAVIA PERÚ

INTERVALS	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
(Meters)		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
2420 - 2450	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2450 - 2480	CHACRA						10	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2480 - 2510	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2510 - 2540	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
4130 - 4160	RIO BRAVO						10	PL YEL		X				X			X			X			YELSH WH	MKY WH	
4160 - 4190	RIO BRAVO						25	PL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
4190 - 4220	RIO BRAVO						35	PL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
4220 - 4250	RIO BRAVO						30	PL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
4250 - 4280	RIO BRAVO						15	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
4280 - 4310	RIO BRAVO						20	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
4310 - 4340	RIO BRAVO						10	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
4340 - 4370	RIO BRAVO						10	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
4670 - 4700	RIO BRAVO						20	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
4700 - 4730	RIO BRAVO		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
5930 - 5940	MOGOLLON						20	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
5940 - 5950	MOGOLLON						5	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
5960 - 5970	MOGOLLON		X					YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6050 - 6060	MOGOLLON						20	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
6290 - 6300	MOGOLLON						10	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
6300 - 6310	MOGOLLON						20	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL

T.G.T - LAB
REGISTROS GEOLÓGICOS

FLUORESCENCE DATA RECORD

WELL: LO6-26XD

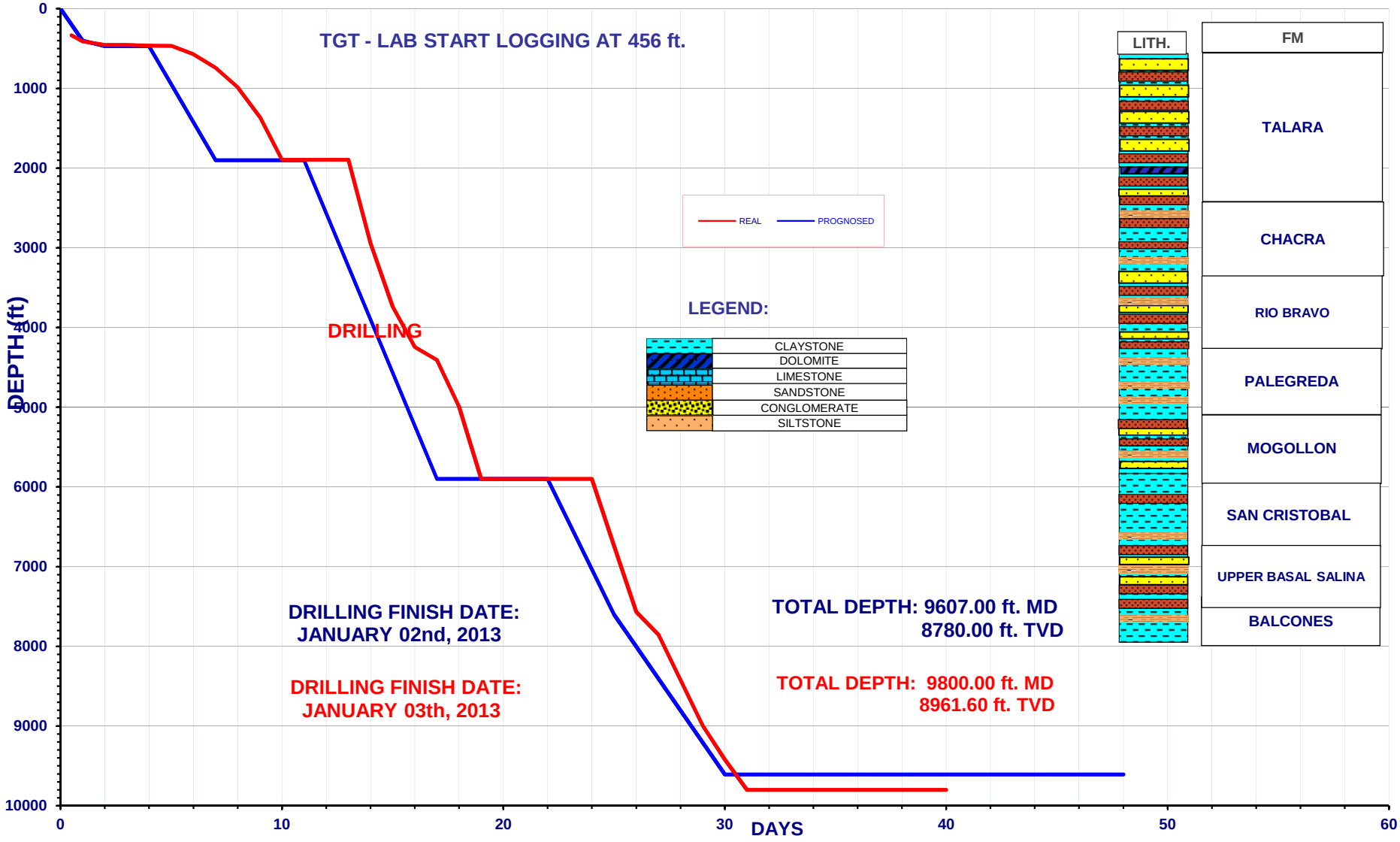
SAVIA PERÚ

INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6310 - 6320	MOGOLLON						20	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
6320 - 6330	MOGOLLON						50	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6330 - 6340	MOGOLLON						40	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6340 - 6350	MOGOLLON						20	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6350 - 6360	MOGOLLON						20	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6360 - 6370	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6370 - 6380	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6380 - 6390	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6390 - 6400	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6460 - 6470	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL
6470 - 6480	MOGOLLON						10	YELSH WH		X				X				X		X			PL YELSH WH	MKY WH	NIL

T.G.T - LAB
REGISTROS GEOLÓGICOS

DRILLING PROGRESS CURVE
WELL : LO6-26XD

SAVIA PERÚ



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REGISTROS GEOLÓGICOS

BIT RECORD

WELL: LO6-26XD

SAVIA PERU

* STARTED MUD LOGGING @ 456 ft.

BIT	SIZE	MAKE	TYPE	SERIAL	DEPTH		HOLE	ROP Efective	HOURS	HOURS	JETS	GPM/PSI	WOB/RPM Klbs / rpm	IADC
	IN				IN	OUT	Made	M/HR	Total	Drilling				
1	17	SMITH	XR+CPS	PW4161	456	986	530	12.5	75.3	42.4	3X16;1X15	760/840	18/50	2-3-CT-A-1-I-NO-BHA
2	17	SMITH	S519MHPX	JF1485	986	1896	910	72.3	101.4	12.6	12X10	755/1700	20/50	2-2-CT-A-X-I-NO-TD
3	12 1/4	NOV	RSR519S	EL45470	1896	4408	2512	64.0	95.1	39.2	1X18;4X16	700/2325	18/65	1-3-CT-T-X-2/16-NR-BHA
4	12 1/4	NOV	MSRE519M	220935	4408	5898	1490	50.4	59.5	29.6	1X18;4X17	725/2865	20/65	1-2-CT-S-I-NO-TD
5	8 1/2	SMITH	MIS616BPX	JF2935	5898	9800	3902	37.8	199.2	103.2	4X13;2X14	580/2850	25/70	1-3-CT-S-X-I-NO-TD

FORMATIONS:	MD (ft)	TVD (ft)
TALARA	0	0.0
CHACRA	1700	1641.7
RIO BRAVO	3470	3353.3
PALEGREDA	5500	4831.2
MOGOLLON	5810	5098.1

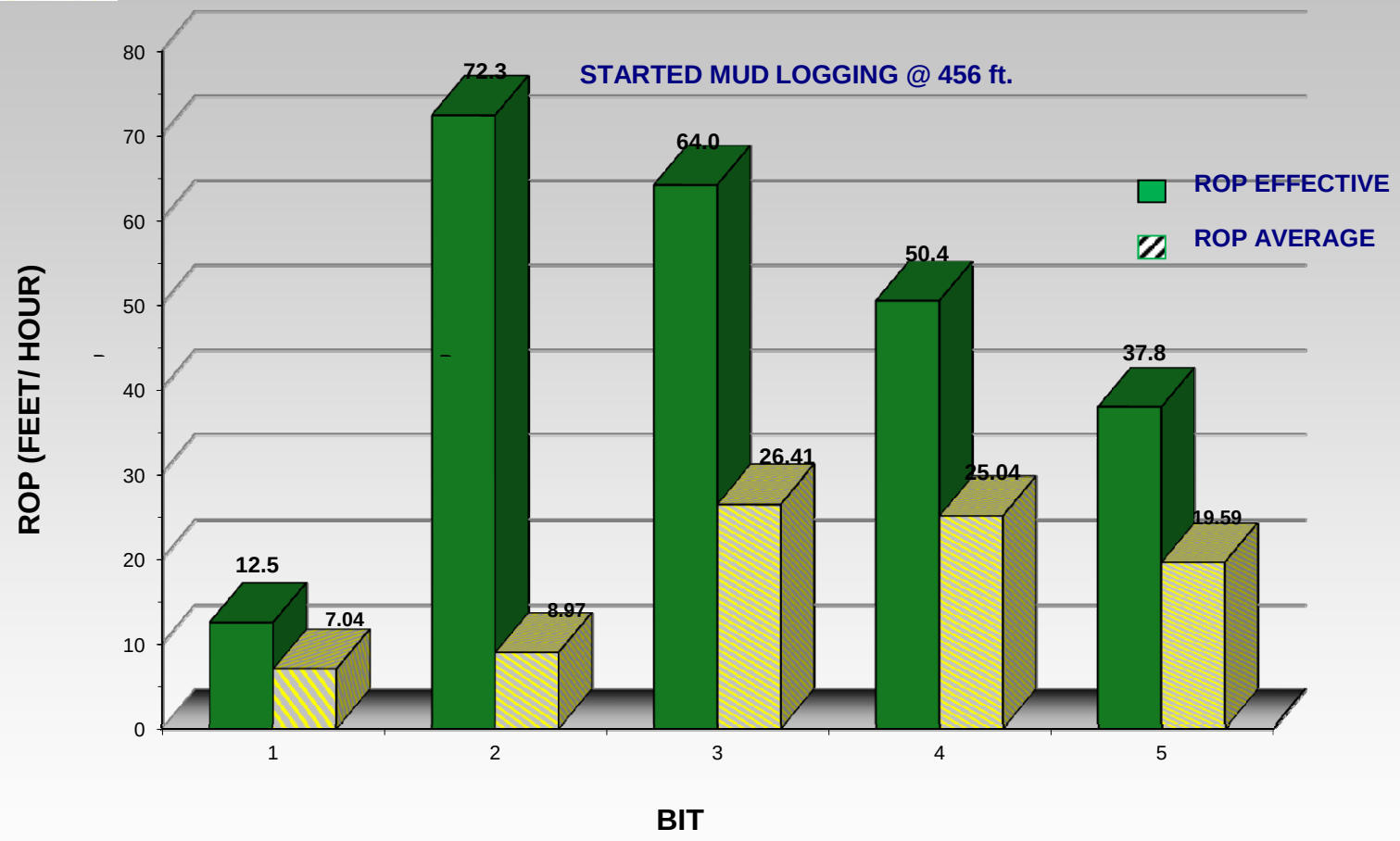
FORMATIONS:	MD (ft)	TVD (ft)
SAN CRISTOBAL	6910	6098.5
UPPER BASAL SALINA	8870	8037.7
LOWER BASAL SALINA	-	-
BALCONES	9685	8847.6
TD	9800	8961.6

T.G.T - LAB
REGISTROS GEOLÓGICOS

WELL : LO6-26XD

EFECTIVE AND AVERAGE RATE OF PENETRATION BY BIT (ft/hr)

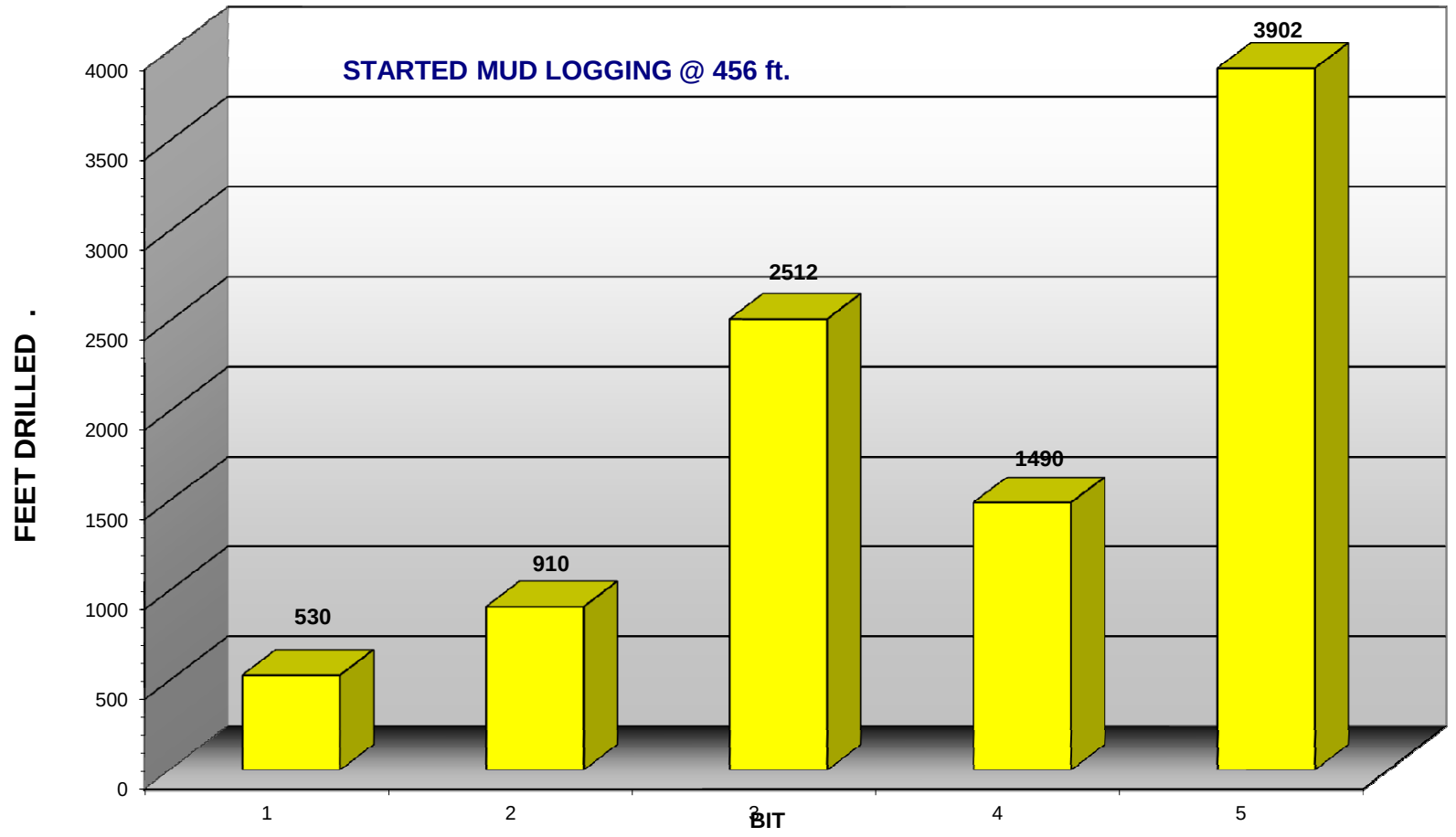
SAVIA PERÚ



T.G.T - LAB
REGISTROS GEOLÓGICOS

SAVIA PERÚ

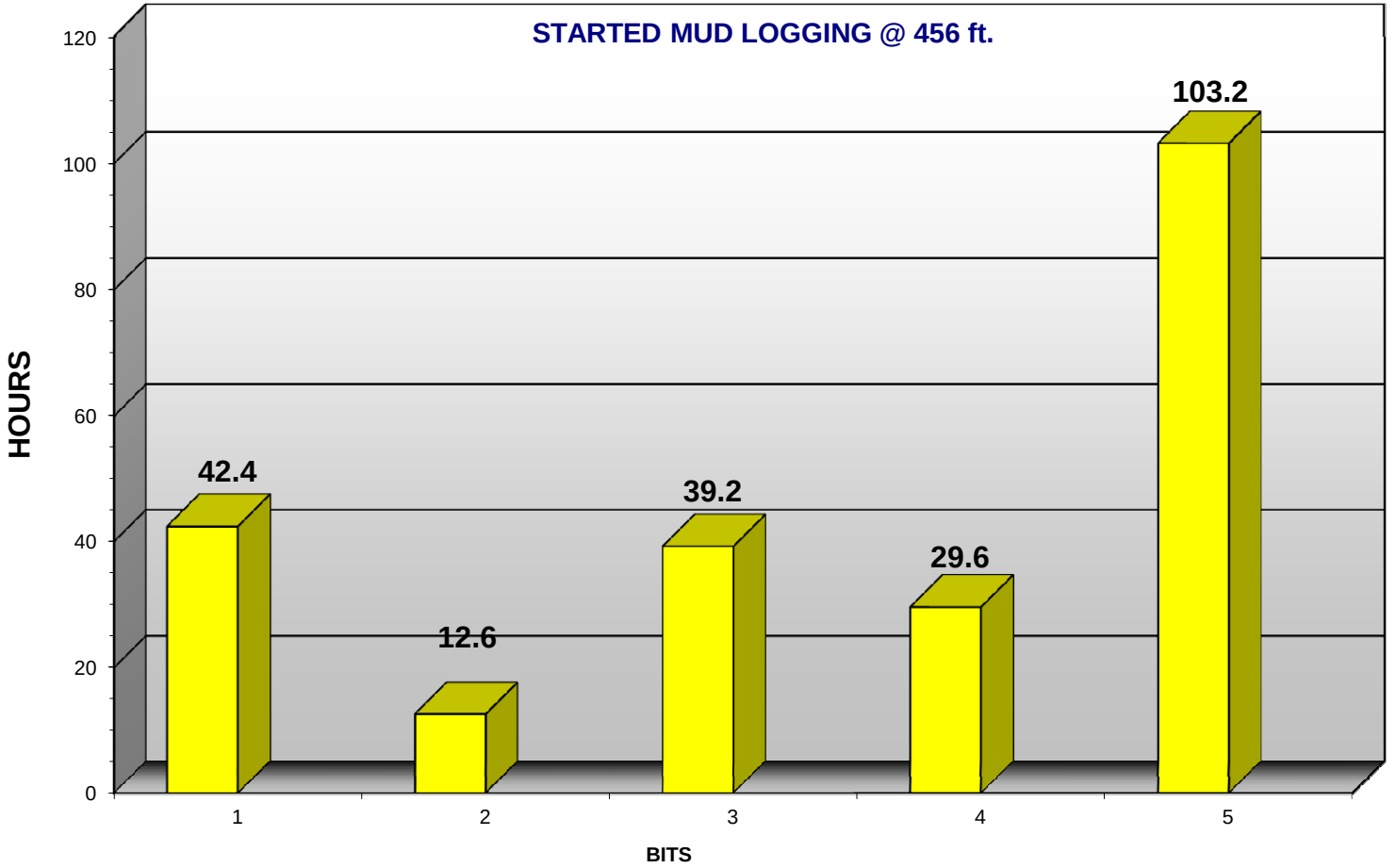
WELL : LO6-26XD
FEET DRILLING BY BIT



T.G.T - LAB
REGISTROS GEOLÓGICOS

SAVIA PERÚ

WELL : LO6-26XD
EFFECTIVE DRILLING HOURS



DAILY OPERATIONS REPORTS

WELL: LO6-26XD

December 07th, 2012

00:00 – 01:00	WOC. Finished to weld flow lines. Prepare 500 bbls 8.9 ppg mud. Open well.
01:00 – 08:00	Move 5"DP from barge to platform messure and take series. M/U 66 jtx5" DP in Stands (22) in derrick. Sophia cristine arrived with Chemicals and unload to Barge.
08:00 – 08:30	Perform safety meeting with Phoenix and Pepesa crew.
08:30 – 09:30	Connect 9 5/8" mud motor BH 1.5, cross over and 15" stabilizer on surface.
09:30 – 12:30	M/U 17" tricone bit, with mud motor, cross over, stabilizer, UBHO. Phoenix Position directional tool. Prepare 700 bbls mud 8.9 ppg.
12:30 – 14:00	Connect 3 x 8" DC, 8" Jar, 3 x 6 3/4" DC, 5" HWDP.
14:00 – 14:30	TIH dir. BHA w/ 17" tricone bit and tag TOC at 435'.
14:30 – 15:30	Drill out cement from 435' to 456'. 400 gpm, pres 460 psi, 35 rpm.
15:30 – 16:00	Dir. Drill rotating w/ BHA and 17" tricone bit from 456' to 460'. Circulate, Geology confirm 50% formation. ok.
16:00 – 16:30	Circulate and displace sea water for 8.9 ppg mud fluid.
16:30 – 17:00	R/U Pepesa wire line unit, run and take Gyro survey. Inc. 0.76 deg, azm 6.57 deg., 205.9 tool face.
17:00 – 18:00	Turn drilling table, positon tool face. Run Gyro survey to confirm tool face Position. Inc. 0.8 degrees, azm 333.97 degrees, 277.68 degrees.
18:00 – 19:00	Dir. drill rotating from 460' to 465'. WOB 8/10 klbs, 700 gpm, pres 1030 psi, 35 Rpm. High torque, posible debris at bottom.
19:00 – 21:00	POOH 17" tricone bit to surface.
21:00 – 23:30	MU & RIH 11 3/4" magnet with 5" DP to 465 ft (1st run). Work on bottom and POOH to surface. Recovered 4 kg of debris.
23:30 – 00:00	MU 13 3/8" canguro

December 08th, 2012

00:00 – 02:00	RIH 13 3/8" canguro with 5" DP, work on bottom all sides, POOH to surface. Recovered 1/4 kg of debris.
02:00 – 04:30	Recovered 1/4 kg of debris. MU & RIH 17" bit with conventional BHA to 465 ft. Work on bottom to remove debris (drill 1 ft without problems).POOH 17" bit to surface.
04:30 – 07:00	MU & RIH11 3/4" magnet with 5" DP to 465 ft (2nd run). Work on bottom and POOH to surface. Recovered smalls debris.
07:00 – 07:30	L/D 11 3/4" magnet. Zuluf (diver vessel) arrived to location. Rig up 18" clamps from Zuluf to platform.
07:30 – 09:30	TIH 17" tricone bit, with mud motor, cross over, 15" stabilizer, UBHO, 3 DC 8", Jar, Cross over, 3 DC 6 1/2".
09:30 – 10:00	Perform fire drill on platform and barge. Participated all services companies.
10:00 – 10:30	Continue TIH dir BHA to 467 ft. Divers perform inspection on jacket elevation.
10:30 – 11:30	Prepare wire line, run Gyro tool, POOH tool. @ 404', incl 1.15 deg, azm 349 deg. tool face 349 deg.
11:30 – 12:30	Directsurvey perform 2nd run. Take survey, POOH tool. @ 404', inc 1.15 deg, azm349 deg, tool face 5 deg. Make correction to data 348 deg. Prepare run to confirm tool face data.

12:30 – 13:00	Directsurvey perform 3rd run to confirm information. Take survey, POOH tool. @ 405' incl 1.16 deg, azm 176 deg, tool face 177.51 deg. Directsurvey tool not sit on UBHO.
13:00 – 13:30	Directsurvey perform 4th run. Take survey, POOH tool. @ 401', incl 0.9 deg, azm353.44 deg, tool face 12.01 deg. Directsurvey tool not sit on UBHO.
13:30 – 14:30	Circulate to clean UBHO. Directsurvey prepare to run tool without centralizer. Divers installing clamp on 5th jacket elevation. no possible to install clamps.
14:30 – 15:00	Directsurvey perform 5th run. Take survey, POOH tool. @ 403', incl 1.11', azm 295.79 deg, tool face 355.48 deg.
15:00 – 16:00	Divers return to Talara with 2 clamp for modification. Directsurvey perform 6th run, to confirm prior data. @ 403', incl 1.13 deg, azm 241.36 deg, tool face 296 deg. Tool not sit on UBHO.
16:00 – 17:30	POOH dir BHA w/ 17" tricone bit to perform inspection to UBHO.
17:30 – 18:30	Perform UBHO visual inspection, ok. Continue POOH BHA. Wait on Cia. GYRODATA, to replace Cia. Directsurvey.
18:30 – 23:00	L/D Directsurvey tools, move tools to barge. Rig up, measure and M/U 5" DP in Stands.
23:00 – 00:00	MU 5" DP. CIA Gyro data arrived al location move Gyro tools from barge to platform and check tools.

December 09h, 2012

00:00 – 01:00	CIA GYRODATA M/U & calibrate Gyro survey tool.
01:00 – 04:00	TIH 17" tricone bit, with mud motor, cross over, 15" stabilizer, UBHO, 3 DC 8", Jar, Cross over, 3 DC 6 1/2". PHOENIX & GYRO DATA perform operative test with stinger into the mule shoe seat.
04:00 – 05:00	R/U wire line, CIA Gyro data run Gyro tool, POOH tool to surface, no confidential data.
05:00 – 06:00	CIA Gyro data configurate tool, Run Gyro tool at 413 ft, inc 0.73 deg, azm 348.13 deg, tool face 268.57 deg.
06:00 – 07:30	Phoenix directional turn BHA and positon tool face. Cia Gyro data run Gyro tool at 413', inc 0.73 deg, azm 323.25 deg, tool face 309.72 deg.
07:30 – 12:00	Dir. drill sliding from 467' to 498'. WOB 10 klbs, pres 690 psi, diff 143 psi, 506 gpm. Shakers show 30% cement, drop to 0%, 100% formation.
12:00 – 13:30	Dir. drill sliding from 498' to 502', WOB 10 klbs, pres 623 psi, diff 75 psi, 508 gpm. Shakers show 50% cement drop to 0%, 100% formation.
13:30 – 16:00	Dir. drill sliding from 502' to 520', WOB 10 klbs, pres 590 psi, diff 70 psi, 514 gpm. Shakers show 100% formation.
16:00 – 17:00	Run Gyro data tool, take survey @ 466'. inc 1.34 deg, azm 302.65 deg.
17:00 – 00:00	Dir. drill sliding from 520' to 573'.WOB 10 klbs, pres 650 psi, diff 70 psi, 514 gpm, ROP 8 ft/hr. Shakers show 100% formation. traces of cement.

December 10th, 2012

00:00 – 05:00	Dir. drill sliding from 573' to 612'.WOB 10 klbs, pres 650 psi, diff 70 psi, 514 gpm, ROP 7 ft/hr. Shakers show 100% formation. Traces cement. last geology sample 60% claystone,30 % sandstone, 10 % Sand.
05:00 – 06:00	Run Gyro data tool, take survey @ 494'. inc 1.22 deg, azm 261.44 deg.
06:00 – 15:00	Dir. drill sliding from 612' to 660'.WOB 10/15 klbs, pres 680 psi, diff 50psi, 515 gpm, ROP 7 ft/hr. Shakers show 95% formation.5% cement. last geology sample @ 650 ft, 10% claystone,40 % sandstone, 50 % Sand.
15:00 – 19:00	dir. drill sliding from 660' to 702'. WOB 18 klbs pres 670 psi, diff 45 psi, 510 gpm.

19:00 – 19:30	Run Gyro data tool, take survey @ 647', inc 4.12 deg, azm 292.48 deg.
19:30 – 20:00	Cia Phoenix turn string and position tool face. Gyro data prepare to run tool and perform confirmation tool face position.
20:00 – 20:30	Run Gyro data tool, take survey @ 647', inc 3.64 deg, azm 297.44 deg.
20:30 – 21:30	dir. drill sliding from 702' to 722'. WOB 15/18 klbs, pres 720 psi, diff 50 psi, 519 gpm.
21:30 – 22:30	Dir. drill rotate from 722 ft to 739 ft. 516 gpm, 718 psi, 12 klb WOB,50 RPM. 1.5 k ft-lb TQ.
22:30 – 23:30	Run Gyro data tool, take survey @680 ft. inc 4.68 deg, azm 308.91deg.
23:30 – 00:00	dir. drill sliding from 739' to 743'. WOB 14 klbs, pres 710 psi, diff 40 psi, 519 gpm.

December 11th, 2012

00:00 – 04:00	Dir. drill sliding from 743' to 780'. WOB 12/14 klbs pres 710 psi, diff 40 psi, 519 gpm.
04:00 – 05:30	Dir. drill rotate from 780 ft to 798 ft. 516 gpm, 710 psi, 12 klb WOB,50 RPM. 1.5 K ft-lb, TQ. geology sample at 770 ft: 40% Sand, 30% clystone,30% sandstone.
05:30 – 06:30	Run Gyro data tool, take survey @ 743', inc 6.7 deg, azm 305.62 deg.
06:30 – 11:00	Dir. drill sliding from 789' to 840'. WOB 15 klbs pres 1100 psi, diff 35 psi, 650 gpm. String vibrate, possible debris at bottom.
11:00 – 13:30	Dir. drill rotate from 840' to 892'. WOB 18 klbs, 50 rpm, pres 1650 psi, 805 gpm. MW: 8.9 ppg.
13:30 – 14:00	Run Gyro data tool, take survey @ 833', inc 9.83 deg, azm 291.88 deg.
14:00 – 14.30	Dir. Phoenix turn string on surface to position tool face. Cia. Gyro data, run and take survey to confirm tool face position.
14:30 – 20:00	Dir. drill sliding from 892' to 952'. WOB 18 klbs pres 1085 psi, diff 62 psi, 635 gpm. String vibrate, possible debris at bottom.
20:00 – 21:30	Dir. drill rotate from 951' to 986'. WOB 16 klbs, 50 rpm, pres 1540 psi, TQ, 1.5 kft-lbs. 800 gpm. String vibrate, possible debris at bottom.
21:30 – 22:00	Run Gyro data tool, take survey @ 931', inc 13.03 deg, azm 282.94 deg.
22:00 – 23:00	Circulate bottom up. pump vis pill. shakers clean, ok. work pipe on bottom before POOH to run magnet.
23:00 – 00:00	POOH dir BHA w/ 17" tricone bit from 986 ft to 650 ft with circulation. 30 klbs over pull.

December 12th, 2012

00:00 – 02:30	Cont. POOH dir BHA w/ 17" tricone bit from 650 ft to shoe (448 ft) with circulation. cont POOH to surface without problems.
02:30 – 05:30	MU & RIH 11 3/4" magnet. work at bottom. POOH magnet. recover 1/4 kg of debris.
05:30 – 08:00	2nd Run 11 3/4" magnet to 986'. Work at bottom, POOH magnet, recover smalls flat iron junk.
08:00 – 08:30	L/D 11 3/4" magnet. Prepare to run 17" PDC bit.
08:30 – 12:30	TIH 17" PDC bit S519 MHPX, Mud motor, cross over, ponny monel, 15" stabilizer, UBHO, MWD, Monel, 3x8"DC.
12:30 – 13:00	Savia Personnal arrived to location (Manuel Inga), perform safety meeting with all services companies.
13:00 – 14:00	Continue TIH dir BHA w/ 17" PDC bit to 987', last stand with pump.
14:00 – 14:30	Dir. drill rotating from 986' to 990'. WOB 8 klbs, 750 gpm, 40 rpm, TQ 1 kft-lb, pres 1500 psi. Take survey @ 915' inc 12.0 deg, azm 284 deg. MW: 9.2 ppg.
14:30 – 15:00	Dir. drill sliding from 990' to 1000'. WOB 10 klbs, pres 1480 psi, 770 gpm.

15:00 – 16:00	Dir. drill rotating from 1010' to 1060'. WOB 10 klbs, 770 gpm, 50 rpm, TQ 1 kftlb, pres 1600 psi.
16:00 – 16.30	Ream, conection, Take survey @ 988' inc 13.9 deg, azm 278.3 deg.
16:30 – 17:30	Dir. drill sliding from 1060' to 1111'. WOB 12 klbs, pres 1690 psi, 770 gpm.
17:30 – 18:00	Dir. drill rotating from 1111' to 1155'. WOB 14 klbs, 770 gpm, 50 rpm, TQ 1 kftlb, pres 1700 psi.
18:00 – 18:30	Ream, conection, Take survey @ 1083' inc 15.1 deg, azm 271.2 deg.
18:30 – 19:00	Dir. drill sliding from 1155' to 1185'. WOB 14 klbs, pres 1700 psi, 770 gpm.
19:00 – 19:30	Dir. drill rotating from 1185' to 1220'. WOB 14 klbs, 770 gpm, 50 rpm, TQ 1 kftlb, pres 1710 psi.
19:30 – 20.30	Dir. drill sliding from 1220' to 1245'. WOB 14 klbs, pres 1700 psi, 770 gpm.
20:30 – 21:00	Ream, conection, Take survey @ 1176' inc 16.9 deg, azm 265 deg.
21:00 – 21:30	Dir. drill sliding from 1249' to 1288'. WOB 14 klbs, pres 1790 psi, 770 gpm.
21:30 – 22:00	Dir. drill rotating from 1288' to 1314'. WOB 15 klbs, 790 gpm, 50 rpm, TQ 1 kftlb, pres 1800 psi.
22:00 – 23:00	Dir. drill sliding from 1314' to 1344'. WOB 15 klbs, pres 1800 psi, 770 gpm.
23:00 – 23.30	Ream, conection, Take survey @ 1271' inc 19.5 deg, azm 259.6 deg.
23:30 – 00.00	Dir. drill sliding from 1344' to 1358'. WOB 15 klbs, pres 1800 psi, 770 gpm.

December 13th, 2012

00:00 – 01:00	Cont. Dir. drill sliding from 1358' to 1389'. WOB 15 klbs, pres 1800 psi, 770 gpm.
01:00 – 01:30	Dir. drill rotating from 1389' to 1422'. WOB 15 klbs, 800 gpm, 50 rpm, TQ 1 kftlb, pres 1800 psi. MW: 9.4 ppg.
01:30 – 02:00	Rig services. while circulate.
02:00 – 02:30	Dir. drill rotating from 1422' to 1439'. WOB 14 klbs, 800 gpm, 50 rpm, TQ 1 kftlb, pres 1800 psi. MW: 9.4 ppg.
02:30 – 03:00	Ream, conection, Take survey @ 1369' inc 23.2 deg, azm 257.1 deg. MW: 9.4 ppg.
03:00 – 03:30	Cont. Dir. drill sliding from 1439' to 1477'. WOB 14 klbs, pres 1800 psi, 770 gpm.
03:30 – 04:30	Dir. drill rotating from 1477' to 1534'. WOB 16 klbs, 800 gpm, 50 rpm, TQ 1 kftlb, pres 1850 psi. MW: 9.4 ppg.
04:30 – 05:00	Ream, conection, Take survey @ 1462' inc 25.2 deg, azm 257.6 deg. MW: 9.4 ppg.
05:00 – 05:30	Cont. Dir. drill sliding from 1534' to 1574'. WOB 16 klbs, pres 1850 psi, 770 gpm.
05:30 – 07:00	Dir. drill rotating from 1574' to 1630'. WOB 16 klbs, 800 gpm, 50 rpm, TQ 1 kftlb, pres 1850 psi. MW: 9.4 ppg. Take survey at 1557', incl 27.5 deg, azm 256.4 deg.
07:00 – 09:30	Accumulate dir. drill sliding f/1630 to 1744'. WOB 22 klbs, pres 1980 psi, dif 140 psi, 760 gpm. Survey @ 1652', incl 29.10 deg, azm 255.8 deg.
09:30 – 12:00	Accumulate dir. drill rotating f/1744 to 1896'. WOB 15 klbs, pres 1954 psi, 52 rpm, 780 gpm. MW:9.4 ppg, shakers show caving. TD section @ 1896'.
12:00 – 12:30	Accumulate conections and surveys. Last survey @ 1747', incl 31.10 deg, azm 255 deg. Geology sample @ 1896', FM Chacra, 90% claystone, 10%, limolita.
12:30 – 17:30	Circulate, pump vis pills, circulate bottom up, shakers show caving, increasing mud weight from 9.4 to 9.8 ppg. Shakers clean, ok.
17:30 – 00:00	POOH & L/D dir. BHA w/ 17" PDC bit to surface. without problems. condition rig floor to MU slick BHA.

December 14th, 2012

00:00 – 03:30	MU & RIH slick BHA with 17" tricone bit, without problems. last stand wash down to bottom (1896 ft).

03:30 – 05:30	Circulate bottom up, pump hi vis pill, continue circulate to shaker clean. calibrate hole with rice : 17.2".
05:30 – 09:00	POOH slick BHA from 1896 ft to surface. Weld shoe and valve to 13 3/8" casing.
09:00 – 11:00	R/U SERTONG equipment remove saver sub, install links on top drive, install hydraulic tongs.
11:00 – 12:00	Perform safety meeting to run 13 3/8" casing with Sertong and Pepesa crew.
12:00 – 18:30	Run 13 3/8" surface casing. from surface to 1825 ft (Made in Russia, 54.5 ppf, K-55, BTC.).
18:30 – 20:00	Medomack vessel arrived to location, position next to Perla Barge. Continue TIH 13 3/8" casing, last 2 joint with circulation head to 1896' (Total : 51 jtsx 13 3/8" csg). Halliburton rig up cement lines.
20:00 – 21:30	Circulate bottom up with 250 gpm, 200 psi. Halliburton continue installing cement lines.
21:30 – 23:00	Stop pump. L/D circulation head, Halliburton R/U cement head, continue circulate.
23:00 – 23:30	Safety & operational meeting with all personnel: Halliburton, PEPESA, TGT LAB and SAVIA. while circulate.
23:30 – 00:00	Halliburton fill cmt lines with fresh water and test lines w/ 2000 psi. drop bottom plug. pump 15 bbls 8.4 ppg mud flush w/ 4.5 bpm. Pump 25 bbls ,11.5 ppg tuned spacer w/ 4.5 bpm. Start mix lead slurry Econocem 12.8 ppg.

December 15th, 2012

00:00 – 02:30	Pump lead slurry Econocem: 12,8 ppg, 254 bbls, 4 bpm, 250 psi. Pump tail cement Halcem :59 bbls, 15.2 ppg, 4 bpm, 370 psi. Stop pumping and drop top plug. displacement with 289 bbls mud 9.8ppg (2 bbls over of theoric calculated) .7/2 bpm 650/430 psi. Return to surface 45 bbls spacer with cement 11.7 ppg and 15 bbls cement 12.2 ppg. Pump plug with 430 psi and over pressure to 980 psi. Perform back flow test 1 bbls, ok. Used 982 sk of cement Pacasmayo.
02:30 – 06:00	Halliburton open cement head and discharge, R/D cement lines. Pepesa welder open window on 18" csg, cut and weld ring between 18" conductor and 13 3/8" csg .Cut 13 3/8" csg, L/D bell nipple. N/D diverter. Halliburton L/D cement lines, Medomack cement barge leave location at 04:30 hrs.
06:00 – 08:00	Continue N/D diverter and 18" extension.
08:00 – 12:00	Weld and bevel on 13 3/8" csg & condition to install 13 3/8" x 13 5/8" x 3M casing head type Slip lock.
12:00 – 12:30	Perform slick lock test with 900 psi, 10 min, ok.
12:30 – 15:00	Install 13 3/8" x 11" x 3M extension, install 13 3/8" x 5M drilling Spool, secure bolts.
15:00 – 18:00	N/U 13 5/8" x 5M double ram BOP Hydrill, tight bolts. N/U 13 5/8" x 5M annular preventer Hydrill.
18:00 – 21:00	Install HCR and chocke line. Weld and pads to center BOP.
21:00 – 22:00	Test operational BOP test, blind ramps 9 seg, pipe rams 9 seg, HRC 2 seg, annular Hydrill 25/30 seg, open/close, ok.
22:00 – 23:00	Attempt to Install bell nipple. No success . Need modify, very long.
23:00 – 00:00	Attempt to install plug tester, no success, can not pass through the bell nipple.(The bell nipple diameter (12.615") is less than the plug tester (13.5/8")). L/D bell nipple.

December 16th, 2012

00:00 – 01.00	M/U and install plug tester with 5" DP, prepare hydraulic pump to perform 13 5/8" BOP test.
01:00 – 03:30	Perform BOP test: pipe rams w/ all valves of manifold with 300/3000 psi x 10 Min. each. Pressure test annular BOP with 300/1500 psi each ok. P/T mud hose to pump & kill valve 300/3000 psi, 10 min, ok. Pick up 5" DP from Perla barge to platform.
03:30 – 05:00	Pick up & L/D 5"DP, Pressure test Blind rams & HCR hydraulic valve with 300/3000 psi x 10 min. ok. Attempt test Manual valve. No success, can not be closed need repair to perform pressure test.
05:00 – 13.00	Continue Pick up 5" DP from Perla barge to platform, messure, take series and M/U 5" DP in stands in derrick. Repair HCR manual valve and pressure test with 300/3000 psi x 10 min ok. L/D plug tester.
13:00 – 14.30	Install 16" bell nipple on Hydrill annular.
14:30 – 22:00	Rig up 12" PDC bit (Reed hycalog RSR519S, (jets 1x18, 4x16), Mud motor BH 1.5, Pony monel, 12 1/8" stabilizer, UBHO, 8" MWD, 8" NMDC, cross over, 1x6 3/4" DC, cross over, 18x5" HWDP, Jar, 6x5" HWDP.
22:00 – 22:30	Last 2 stands wash down from 1700 ft and Tag top of cement at 1854 ft.
22:30 – 00.00	Drill out cement f/1854' to 1874'. drill out top and bottom plug & float collar. with 420 gpm, 950 psi, 40 rpm, WOB 5 klbs, TQ 3-4 klb-ft.

December 17th, 2012

00:00 – 00:30	Stop circulation and close anular BOP and perform casing integrity test w/ 900 psi, 10 min, ok.
00:30 – 01:30	Continue drill out cement f/ 1874' to 1893'. with 450 gpm, 950 psi, 40 rpm, WOB 5 klbs, TQ 3-4 klb-ft.
01:30 – 02:00	Halliburton change mud system w/400gpm, 950 psi. Displace contaminate mud by 9.8 ppg mud system. clean tanks.
02:00 – 03:30	Drill out cmt, shoe and 10 ft of formation from 1893 ft to 1906 ft, circulate and geology confirm 100 % formation.
03:30 – 04:00	Perform Formation Integrity Test (FIT) with MW 9.8 ppg. EMW 13.5 ppg. 348 psi, at 1807 ft TVD. No success, do not held pressure, drop press to 250 psi in 15 min. (with 250 psi the EMW=12.5 ppg).
04:00 – 06:00	Directional drill rotate from 1906 ft to 2060 ft. with 600 gpm,1600 psi,50 rpm, 8/10 klb WOB, 4 kft-lb TQ.
06:00 – 07:30	Accumulate dir. drill sliding from 2060' to 2097'. WOB 13.5 klbs, pres 1950 psi, 680 gpm. MW: 9.8 ppg, FM Chacra, 100% claystone.
07:30 – 11:00	Accumulate dir. drill rotating from 2097' to 2502'. WOB 17 klbs, 60 rpm, pres 2400 psi, 780 gpm. Change Formation @ 2450', 70% sandstone, 20% claystone, 10% Sand. Gas 70 units.
11:00 – 12:00	Accumulate ream and surveys @ 2343', inc 33.8 deg, azm 252 deg.
12:00 – 13:00	Dir. drill sliding from 2502' to 2513'. WOB 17 klbs, 720 gpm, pres 2214 psi. Gas 220 units, drop to cero. Show over pull 40 klbs.
13:00 – 14:30	Dir. drill rotating from 2513' to 2595'. WOB 21 klbs, 70 rpm, 770 gpm, pres 2420 psi. Geology sample @ 2570', 50% sandstone, 40% claystone, 10% Sand.
14:30 – 15:30	Circulate, pump vis pill to clean annular. keep string moving up/down, while cleanning possum belly (embudo zaranda) full claystone.
15:30 – 16:30	Dir. drill sliding from 2595' to 2611'. WOB 17 klbs, 720 gpm, pres 2200 psi.
16:30 – 17:30	Dir. drill rotating from 2611' to 2692'. WOB 20 klbs, 60 rpm, 770 gpm, pres 2500 psi.

17:30 – 18:00	Ream and take survey.
18:00 – 18:30	Dir. drill sliding from 2692' to 2708'. WOB 18 klbs, 730gpm, pres 2300 psi.
18:30 – 19:30	Dir. drill rotating from 2708' to 2786'. WOB 20 klbs, 60 rpm, 770 gpm, pres 2500 psi.
19:30 – 20:00	Ream and take survey.
20:00 – 21:00	Dir. drill rotating from 2786' to 2882'. WOB 20 klbs, 60 rpm, 770 gpm, pres 2620 psi.
21:00 – 21:30	Ream and take survey.
21:30 – 22:00	Rig services.
22:00 – 23.00	Dir. drill sliding from 2882' to 2894'. WOB 18 klbs, 750gpm, pres 2420 psi.
23:00 – 00:00	Dir. drill rotating from 2894' to 2942'. WOB 15/20 klbs, 70 rpm, 770 gpm, pres 2620 psi.

December 18th, 2012

00:00 – 00:30	Dir. drill rotating from 2942' to 2977'. WOB 20 klbs, 60 rpm, 770 gpm, pres 2600 psi. 75 ft/hr ROP.
00:30 – 01:00	Ream and surveys.
01:00 – 02:30	Dir. drill rotating from 2977' to 3073'. WOB 20 klbs, 60 rpm, 770 gpm, pres 2600 psi. 75 FT/HR ROP. Geology sample at 3168 ft : 100% claystone.
02:30 – 03:00	Ream and surveys at 3008 ft, inc 33.7 deg, azm 253.1 deg.
03:00 – 04:00	Dir. drill sliding from 3073' to 3088'. WOB 15/20 klbs, 750 gpm, pres 2650 psi.
04:00 – 05:00	Dir. drill rotating from 3088' to 3168'. WOB 15/20 klbs, 70 rpm, 770 gpm, pres 2640 psi. 7 k ft-lb TQ.
05:00 – 06:00	Circulate, pump hi vis pill to clean the hole. ream and take survey at 3102 ft, inc 33.5 deg, azm 252.4 deg.
06:00 – 09:30	Dir. drill rotating from 3168' to 3310'. WOB 16/17 klbs, 65 rpm, pres 2360 psi, 650 gpm. Pepesa Pump #2 lainer 6" leak, working with pump #1 White Start and #3 PZ8. ROP 68 ft/hr.
09:30 – 11:00	Dir. drill rotating from 3310 to 3357'. WOB 17 klbs, 65 rpm, pres 2900 psi, 760 gpm. Working with pump #1 & #2 (White Star). ROP 85 ft/hr.
11:00 – 12:00	Dir. drill rotating from 3357' to 3391'. WOB 16 klbs, 65 rpm, pres 2300 psi, 650 gpm. Pepesa Pump #2 packing cover fail, working with pump #1 White Star and #3 PZ8. ROP 65 ft/hr.
12:00 – 12:30	Dir. drill rotating from 3391' to 3418'. WOB 17 klbs, 65 rpm, pres 2900 psi, 760 gpm. Working with pump #1 & #2 (White Star). ROP 90 ft/hr.
12:30 – 13:00	Dir. drill rotating from 3418' to 3453'. WOB 16 klbs, 68 rpm, pres 2357 psi, 680 gpm. Pepesa Pump #1 piston fail, working with pump #2 White Star and #3 PZ8. ROP 70 ft/hr.
13:00 – 14:00	Dir. drill rotating from 3453' to 3515'. WOB 17 klbs, 65 rpm, pres 2900 psi, 760 gpm. Working with pump #1 & #2 (White Star). ROP 105 ft/hr.
14:00 – 15.00	Dir. drill rotating from 3515' to 3548'. WOB 16 klbs, 65 rpm, pres 2350 psi, 680 gpm. Pepesa Pump #1 piston fail, working with pump #2 White Star and #3 PZ8. ROP 60 ft/hr.
15:00 – 19:00	Dir. drill rotating & sliding from 3548' to 3736'. WOB 15 klbs, 65 rpm, pres 2970 psi, 750 gpm, TQ 7 klb-ft Working with pump #1 & #2 (White Star). ROP 60 ft/hr.
19:00 – 21:00	Circulate, pump vis pill, condition hole, shakers clean, ok.
21:00 – 23:30	Wiper trip, from 3736 ft. to shoe (1894 ft). without problem. no show drag.
23:30 – 00:00	Rig services while clean possum belly and shaker tank.

December 19th, 2012

00:00 – 02:00	RIH from Shoe (1894 ft) to 3520 ft . without problem. last 2 stand wash down to

	bottom (3736 ft).
02:00 – 02:30	Circulate bottom up with 780 gpm.
02:30 – 03:30	Dir. drill rotating from 3736' to 3790'. WOB 17 klbs, 60 rpm, pres 2750 psi, 750 gpm. Pepesa Pump #1 packing cover fail, ROP 54 ft/hr.
03:30 – 04:30	Dir. drill rotating from 3790' to 3831'. WOB 16 klbs, 60 rpm, pres 2100 psi, 660 gpm. working with pump #2 White Star and #3 PZ8.
04:30 – 05:00	Ream & survey.
05:00 – 09:00	Dir. drill rotating from 3831' to 3975'. WOB 17 klbs, 65 rpm, pres 2780 psi, ROP 51 ft/hr. Survey @ 3862' incl 33.9 deg, azm 252.6 deg.
09:00 – 10:00	Pepesa repair pumps #2 and #1.
10:00 – 12:00	Dir. drill rotating from 3975' to 4032'. WOB 14 klbs, 750 gpm, pres 2840 psi, TQ 12 klbs-ft.
12:00 – 12:30	Accumulate reaming and circulating.
12:30 – 14:00	Cia. Phoenix work string up/down, position tool face. Dir. drill sliding from 4032' to 4045'. WOB 20 kbls, 670 gpm, pres 2200 psi. Pepesa pump #1 packing fail.
14:00 – 15:00	Dir. drill rotating from 4045' to 4080'. WOB 14 klbs, 750 gpm, pres 2840 psi, TQ 13 klbs-ft. Last survey @ 3957' inc 34.2 deg, azm 252.5 deg. Geology sample @ 4040', 40% Siltstone, 30% sandstone, 30% claystone.
15:00 – 15.30	Pepesa Rig service.
15:30 – 16:30	Dir. drill rotating from 4080' to 4125'. WOB 12 klbs, 63 rpm, pres 2768', 680 gpm.
16:30 – 17:30	Dir. drill sliding from 4125' to 4130'. WOB 19 klbs, 750 gpm. Work string up/down, positioning tool face.
17:30 – 18:30	Accumulate pumps #1and #2 problem with packing cover.
18:30 – 21:00	Dir. drill sliding from 4130' to 4145. WOB 15/20 klbs, 750 gpm. Work string up/down, positioning tool face. drill slide turn string from rigth to left side.
21:00 – 23:00	Dir. drill rotating from 4145' to 4210'. WOB 17 klbs, 63 rpm, pres 2250 psi, 670 gpm. 12 k ft-lb TQ. Working with pump # 2 with star & 3 PZ 8.
23:00 – 23:30	Ream & take survey.
23:30 – 00:00	Dir. drill rotating from 4210' to 4244'. WOB 17 klbs, 63 rpm, pres 2950 psi, 750 gpm. 12 k ft-lb TQ. Working with pump # 1 & 2 with.

December 20th, 2012

00:00 – 01:30	Dir. drill rotating from 4244' to 4287'. WOB 17 klbs, 63 rpm, pres 2950 psi, 750 gpm. 12 k ft-lb TQ. Working with pump # 1 & 2 White star.
01:30 – 02:00	Dir. drill rotating from 4287' to 4305'. WOB 15 klbs, 63 rpm, pres 2350 psi, 680 gpm. 12 k ft-lb TQ. Working with pump # 2 white star & # 3 PZ 8. while repair: Pump #1 packing cover fail, change liner.
02:00 – 02:30	Ream & take survey.
02:30 – 03:00	Dir. drill rotating from 4305' to 4314'. WOB 15 klbs, 60 rpm, pres 2350 psi, 680 gpm. 12 k ft-lb TQ. Working with pump # 2 white star & # 3 PZ 8.
03:00 – 03:30	Circulate with Pump # 3. (Pepesa repair: Pump #2 piston fail and Pump #1:change: packing cover, piston, liner & valve).
03:30 – 04:30	Dir. drill rotating from 4314' to 4344'. WOB 15 klbs, 60 rpm, pres 3000 psi, 760 gpm. 12 k ft-lb TQ. Working with pump #1&2 white.
04:30 – 05:00	Pepesa repair pumps #1 and #3. circulate with pump # 2. 480 gpm.
05:00 – 07:30	Dir. drill rotating from 4344' to 4400'. WOB 15 klbs, 60 rpm, pres 2980 psi, 760 gpm. 12 k ft-lb TQ, 30 ft/hr ROP. Last geology sample at 4340 ft: 60% Sand, 20% Siltstone, 10% sandstone,10% claystone.
07:30 – 09:00	Dir. drill sliding from 4400' to 4408'. WOB 22 klbs, 745 gpm, pres 2900 psi. Work string up/down to position tool face.

09:00 – 10.00	Circulate bottom up, shaker clean, ok.
10:00 – 16:00	POOH dir. BHA w/ 12 1/4" PDC bit to change MWD battery and inspection bit. Continue POOH to 300 ft.
16:00 – 17:00	L/D mud motor, and 12 1/4" PDC bit.
17:00 – 19:00	M/U and TIH new 12 1/4" PDC bit MRE519M, jet 1x18;4x16, new mud motor and new battery for MWD, and perform shallow test at 500 ft, MWD cynchronize, ok.
19:00 – 21:00	Continue TIH dir. BHA w/ 12 1/4" PDC bit from 500' to shoe (1894ft). and Circulate at shoe
21:00 – 21.30	Circulate at shoe.
21:30 – 22:00	Rig services (lubricating)
22:00 – 00:00	Continue TIH dir BHA with 5" DP from shoe (1894ft) to 3850 ft. found restriction, cont. RIH with circulation and rotation to 4000 ft. tight hole.

December 21st, 2012

00:00 – 01:30	Continue TIH dir BHA with 5" DP, reaming from 4000 ft to bottom (4408 ft).
01:30 – 02:00	Circulate bottom up with 770 gpm, 2950 psi.
02:00 – 03:30	Directional drill rotate from 4408 ft to 4413 ft. Directional drill slide from 4413 ft to 4423 ft with 720 gpm, 2570 psi, 10 klb WOB.
03:30 – 05:00	Directional drill rotate from 4423 ft to 4495 ft. with 750 gpm, 2960 psi, 65 rpm, 15 klb WOB. 10 K ft-lb TQ. 50 ft/hr ROP.
05:00 – 05:30	Ream & take survey.
05:30 – 06:00	Directional drill rotate from 4495 ft to 4545 ft. with 750 gpm, 2960 psi, 65 rpm, 15 klb WOB. 10 K ft-lb TQ. 50 ft/hr ROP. Last geology sample at 4490 ft 20% Sand, 20% sandstone,40%silstone,20% claystone.
06:00 – 11.00	Directional drill rotate from 4545 ft to 4698 ft. with 760 gpm, 2978 psi, 63 rpm, 12 klb WOB. 12 K ft-lb TQ.
11:00 – 11:30	Accumulate ream and surveys.
11:30 – 12:00	Pepesa perform rig service and pumps inspection.
12:00 – 13:00	Dir. drill sliding from 4698' to 4709'. WOB 20 klbs, pres 2641 psi, 730 gpm.
13:00 – 15:00	Dir. drill rotating from 4709' to 4782' WOB 12/14 klbs, 760 gpm, pres 2959 psi, 68 rpm. Last survey @ 4620', inc 34.4 deg, azm 251.2 deg. Last geology sample @ 4760', 80% claystone, 10% Siltstone, 10% Sandstone.
15:00 – 15:30	Ream & take survey.
15:30 – 18:00	Dir. drill rotating from 4782' to 4882' WOB 12/14 klbs, 750 gpm, pres 2950 psi, 68 rpm.
18:00 – 18:30	Ream & take survey.
18:30 – 20.30	Dir. drill sliding from 4882' to 4896'. WOB 20 klbs, pres 2700 psi, 725 gpm.
20:30 – 23:00	Dir. drill rotating from 4896' to 4972' WOB 12/14 klbs, 750 gpm, pres 2980 psi, 65 rpm.
23:00 – 23:30	Ream & take survey.
23:30 – 00.00	Dir. drill rotating from 4972' to 4994' WOB 12/14 klbs, 750 gpm, pres 2980 psi, 65 rpm.

December 22nd, 2012

00:00 – 01:30	Dir. drill rotating from 4994' to 5067 ' WOB 12/14 klbs, 750 gpm, pres 3000 psi, 65 rpm.12 k ft-lb TQ.
01:30 – 02:00	Ream & take survey 5000 ft, 31.7 deg inc,251.4 deg azm.
02:00 – 04:00	Dir. drill rotating from 5067' to 5163 ' WOB 12/14 klbs, 750 gpm, pres 3020 psi, 65 rpm.12 k ft-lb TQ.
04:00 – 04:30	Ream & take survey at 5095 ft, 31.7 deg inc,251.4 deg azm.

04:30 – 06:00	Dir. drill rotating from 5163' to 5261' WOB 12/14 klbs, 750 gpm, pres 3100 psi, 65 rpm. 12 k ft-lb TQ. Last geology sample at 5190 ft: 50% Sand, 20% Sandstone, 10% Siltstone, 20% claystone.
06:00 – 08:00	Dir. drill sliding from 5261' to 5285'. WOB 25 klbs, pres 2795 psi, 730 gpm.
08:00 – 14:30	Dir. drill rotating from 5285' to 5615'. WOB 17 klbs, pres 3000 psi, 740 gpm, 60 rpm.
14:30 – 15:00	Accumulate ream and survey. Last survey @ 5475', inc 30.4 deg, azm 253.9 deg. Last geology Sample @ 5490'. FM Rio Bravo, 80% claystone, 10% Siltstone, 10% Sand.
15:00 – 20:30	Dir. drill rotating from 5615' to 5898'. WOB 19 klbs, pres 2980 psi, 730 gpm, 65 rpm.
20:30 – 22:30	Circulate, Pump hi vis pill and continue circulate to shaker clean.
22:30 – 00:00	POOH 12 1/4" PDC bit with dir. BHA from bottom (5898 ft) to 4795 ft. with normal drag. flow check ok.

December 23rd, 2012

00:00 – 06:00	Cont. POOH 12 1/4" PDC bit with dir. BHA from 4795 ft to Shoe, with normal drag. continue POOH & L/D dir BHA at surface.
06:00 – 12:30	M/U and TIH Slick BHA w/ 12 1/4" tricone bit to calibrate hole, to 4200'.
12:30 – 14:00	Continue TIH from 4200' to 4290', restriction at 4240'. Work string up/down, clean and ream with 50 rpm, 600 gpm.
14:00 – 18:30	Continue TIH Slick BHA w/ 12 1/4" tricone bit from 4290' to bottom (5898 ft) reaming with 620 gpm, 50 rpm.
18:30 – 20:30	Circulate, pump hi vis pill to clean the hole, continue circulate to shaker clean.
20:30 – 00:00	TOOH from bottom (5898 ft) to 5500 ft with circulation & rotation. (tight hole) continue POH from 5500 ft to 3600 ft with normal drag.

December 24th, 2012

00:00 – 00:30	Circulate at 3600 ft a bottom up.
00:30 – 02:30	TIH from 3600 ft, tag at 5180 ft wash down to 5237 ft. Continue TIH from 5237 ft to bottom without problems.
02:30 – 04:30	Circulate, pump hi vis pill to clean the hole, continue circulate to shaker clean. increase MW from 10.7 to 10.8 ppg.
04:30 – 06:00	TOOH from bottom (5898 ft) to 4200 ft. with normal drag.
06:00 – 08:00	Continue pull out 12 1/4" tricone bit from 4200`to 1788' inside 13 3/8" shoe.
08:00 – 08:30	Wait on mechanical and 7/8"x650 ft crane cable. Circulate bottom up, perform flow check, ok. Prepare drilling table, Pepesa inspection DP hydraulic tong.
08:30 – 15:00	Wait on mechanical and 7/8"x650 ft crane cable. (Manitowoc 020).
15:00 – 17:30	TIH w/ 12 1/4" tricone bit from 1788' to 5898'. free with out restriction. Savia mechanical arrived to location at 13:30 hrs. with 7/8"x900 ft crane cable.
17:30 – 18:30	Circulate bottom up, shaker clean ok. Savia mechanical continue changing 7/8" crane cable.
18:30 – 22:30	Pull out slick BHA w/ 12 1/4" tricone bit from 5898' to 5500 with circulation. cont TOOH from 5500 to shoe (1900 ft) with normal drag. ITS Personnal rig up hydraulic tongs and fill up tool from barge.
22:30 – 00:00	Continue POOH from 1900' to 600 ft.

December 25th, 2012

00:00 – 00:30	Rig services.
00:30 – 02:00	Continue L/D JAR, 6 3/4" DC ,8" drill collar, STB &12 1/4" bit. Rig up 3 casing

	joints, (csg 9 5/8", BTC, 43.5 lb/ft), install shoe and float valve according to casing tally.
02:00 – 03:30	Retrieve wear bushing, L/D hawk jaw, TD links and organize rig floor.
03:30 – 04:30	R/U ITS running tools (Install spider, side door elevator, 20 ft links, hydraulic tong, single joint, fill up tool) on rig floor.
04:30 – 05:00	Perform safety & operational meeting with PEPESA, ITS, Tramarsa & Savia personnel to run 9 5/8" csg.
05:00 – 06:00	R/U & M/U 9 5/8" drillable float shoe, 2 jts 9 5/8" csg 43.5 ppf, BTC. Install 2 centralizer and install 9 5/8" drillable float collar. Run at 192 ft.
06:00 – 18:00	Continue TIH 9 5/8" casing, 43.5 ppf, BTC. to 5898 ft, 158 joints. fill casing every 10 joints. and circulate at 2500 ft & 5100 ft.
18:00 – 20:30	Sofía vessel arrived to location, provide consume water and Diesel. Cia ITS change side door, and install conventional elevator. Circulate w/ 225 gpm, 300 psi. Medomack cement vessel arrived to location, prepare spacer fluid while Sofía vessel finish to provide water and diesel.
20:30 – 23:00	Continue circulation with 335 gpm (8 bpm), pres 440psi. Cia Halliburton rig up cement lines from Medomack vessel to platform. Install Halliburton cement head.
23:00 – 23:30	Perform safety meeting with Halliburton and Pepesa crew.
23:30 – 00:00	Halliburton fill cmt lines with fresh water and test lines w/ 3000 psi. drop bottom plug. pump 20 bbls 8.4 ppg mud flush w/5 bpm.

December 26th, 2012

00:00 – 03:30	Pump 50 bbls ,11.5 ppg tuned spacer w/ 5 bpm. Start mix lead slurry Extendacem V 13,5 ppg. Pump lead slurry ExtendaCem V: 13,5 ppg, 203 bbls, 5 bpm, 480 psi. Pump tail cement Halcem V: 195 bbls, 15.2 ppg, 5 bpm, 650-730 psi. Stop pumping and drop top plug. displacement with 435 bbls mud 10.8 ppg (1.5 bbls over of theoric calculated) 7/2 bpm 470/1100 psi. Return to surface 40 bbls contaminad cement & 15 bbls cement of 13 ppg. Pump plug with 1100 psi and over pressure to 1600 psi. Perform back flow test 2bbls, ok. Used 1570 stk of cement Pacasmayo.
03:30 – 04:30	WOC, Halliburton open cement head and discharge. R/D Cementing lines and Pepesa crew L/D flow line, kill line, HCR and clean BOP, clean tanks and shakers.
04:30 – 06:00	Lift 13 5/8" BOP w/raiser, center 9 5/8" csg, set slips 175 klbs. L/D belt nipple to remove 9 5/8" csg landing joint.
06:00 – 09:30	Cut and level 9 5/8" csg on first level. Install casing spool 13 5/8 x 3M - 11 x 3M, tight bolts and perform test w/1900psi by 10 min, ok. Install double flange drill extension 13 5/8 x 5M- 11x5M/ 11x.
09:30 – 14:00	Install 13 5/8" x 5M drilling spool, BOP stack and tighten bolts. Connect chock line and kill lines from drilling spool to manifold.
14:00 – 15:00	Run 5" DP joint to center 13 5/8" BOP and weld pads to BOP on second level.
15:00 – 18:00	Install bell nipple and flow line, move material from platform to barge.
18:00 – 23:00	Install 9 5/8" plug tester. Perform BOP test. Pipe rams, 500 & 3000 psi, by 10 min, ok. Annular w/ 300 & 1500 psi, by 10 min, ok. Pepesa P/U 5"DP from barge to platform. Remove 5" DP and continue BOP test: Blind ram w/ 300 & 3000 psi, by 10 min, ok. Blind ram w/ external, medium, internal of manifold w/ 300 & 3000 psi, by 10 min, ok. Test TDS, ok.
23:00 – 00.00	P/U stand and retrieve plug tester. M/U & install wear bushing secure stops, ok.

December 27th, 2012

00:00 – 01:00	Cut off and slip drilling line 120 ft. Rig up from barge to platform 5" DP, measure and take serial number.
01:00 – 02:30	Prepare drilling table. Phoenix Rig up directional tools, calibrate MWD tool.
02:30 – 06:00	M/U dir. BHA 8 1/2" PDC bit (MSI 616 BPX, jet 4x13; 2x14, Mud motor 6 3/4" BH 1.5, STB 8 1/4", UBHO, MWD monel). Install MWD tool & continue RIH to 300 ft. Shallow test w/ 430 gpm & 650 psi, ok.
06:00 – 12:30	Continue RIH dir BHA w/ 8 1/2" PDC bit from 300' to 2680'. in single joint 5" DP.
12:30 – 13:00	Pepesa change crew, perform safety meeting.
13:00 – 18:30	Continue RIH directional BHA w/ 8 1/2" PDC bit from 2680' to 5802' (TOC), wash down last three stands with 400 gpm, 1400 psi. Fill pipe each 1000 ft.
18:30 – 20:00	Drillout from 5802´ to 5870´ w/400 gpm, 1400 psi, wob 5/8 klbs, 40 rpm, 9/11 klb-ft tq. Drillout top, bottom plug and float collar at 5805´.
20:00 – 20:30	Circulate at 5870´ w/ 400 gpm, 1400 psi, observed by shakers top & bottom plug rubbers.
20:30 – 21:30	Perform CIT w/1500 psi by 10 min, ok.
21:30 – 22:30	Drillout cement from 5870´ to 5885´ (9 5/8" csg shoe) w/ 400 gpm, 1400 psi, 5-8 klb wob, 9/11 klb-ft tq, 40 rpm.
22:30 – 23:30	Circulate w/400 gpm &1400 psi to change mud system Ezmud-Clayseal 10.8 ppg by Baradril-N 10.7 ppg. Clean shaker, possum belly and sun tank on platform.
23:30 – 00:00	Continue rotary drilling new formation from 5885´ to 5895´ (9 5/8" csg shoe at 5885´) with 400 gpm, 1400 psi, 6-10 klb wob, 40 rpm, 9/11 klb-ft tq. Geologist take sample and confirm 50% of formation.

December 28th, 2012

00:00 – 00:30	Continue circulate with 400 gpm, 1400 psi and Geologist take bottom sample and confirm 90% formation.
00:30 – 01:00	Perform FIT w/ MW 10.7 ppg, 1020 psi, EMW 14,43 ppg and TVD 5180 ft, ok. Start drilling ahead.
01:00 – 12:00	Drill rotating from 5895 ft to 6337 ft, 450/550 gpm, press 1580/2850 psi, 10/18 klbs wob, 55/65 rpm, tq 9/12 kft-lb, ROP avg 41 ft/hr.
12:00 – 15:00	Accumulate circulating, reaming, surveys & conections. Last survey at 6280 ft, inc 25.8º, azm 251.60ª. Pump 30 bbl HVP at 6242 ft.
15:00 – 20:00	Accum drill rotating from 6337 ft to 6715 ft, 550 gpm, press 2900 psi, 15/20 klbs wob, 60 rpm, tq 10/13 kft-lb, ROP avg 75.6 ft/hr.
20:00 – 21:30	Drilling sliding from 6715 ft to 6737 ft, 500 gpm, press 2600 psi, 20/25 klbs wob, ROP avg 14.6 ft/hr.
21:30 – 00:00	Accumulate circulating, reaming, surveys & conections. Last survey at 6660 ft, inc 19.7º, azm 246.8ª. Pump 30 bbl HVP at 6620 ft. Last geology sample at 6730 ft 70% Clyst, 10% Sltst, 10% Sd and 10% Sst.

December 29th, 2012

00:00 – 02:30	Accum drill rotating from 6737 ft to 6903 ft, 550 gpm, press 2980 psi, 15/20 klbs wob, 60 rpm, tq 10/13 kft-lb, ROP avg 69.36 ft/hr.
02:30 – 05:00	Accum drill sliding from 6903 ft to 6926 ft, 500 gpm, press 2600 psi, 20/25 klbs wob, ROP avg 9.6 ft/hr.
05:00 – 06:00	Accumulate circulating, reaming, surveys & conections. Last survey at 6850 ft, inc 17.6º, azm 247.9ª. Last geology sample at 6920 ft 90% Clyst, 10% Sltst and

	10% Sst.
06:00 – 10:30	Accum drill rotating from 6926 ft to 7207 ft, 540 gpm, press 2980 psi, 15/20 klbs wob, 60 rpm, tq 10/13 kft-lb, ROP avg 61.3 ft/hr.
10:30 – 12:30	Accum drill sliding from 7207 ft to 7277 ft, 500 gpm, press 2650 psi, 20/25 klbs wob, ROP avg 37.2 ft/hr.
12:30 – 15:00	Accumulate circulating, reaming, surveys & conections. Last survey at 7229 ft, inc 12.0º, azm 251.5ª. At 7094 ft pump 30 bbl HVP and circulate a bottom up to clean hole.
15:00 – 21:00	Accum drill rotating from 7277 ft to 7536 ft, 540 gpm, press 3100 psi, 15/22 klbs wob, 60 rpm, tq 10/14 kft-lb, ROP avg 44.53 ft/hr.
21:00 – 22:30	Accum drill sliding from 7536 ft to 7569 ft, 540 gpm, press 2950 psi, 25/30 klbs wob, ROP avg 24.75 ft/hr.
22:30 – 00:00	Accumulate circulating, reaming, surveys & conections. Last survey at 7513 ft, inc 9.0º, azm 245.9ª. At 7094 ft pump 30 bbl HVP and circulate a bottom up to clean hole. Last geology sample at 7560 ft.

December 30th, 2012

00:00 – 03:00	Accum drill rotating from 7569 ft to 7676 ft, 525 gpm, press 3150 psi, 15/22 klbs wob, 65 rpm, tq 10/14 kft-lb, ROP avg 39.6 ft/hr.
03:00 – 05:30	Accumulate circulating, reaming, surveys & conections. Last survey at 7609 ft, inc 8.6º, azm 241.2ª. At 7601 ft pump 30 bbl HVP to clean hole.
05:30 – 08:30	Drill sliding from 7676 ft to 7727 ft, 530 gpm, press 3000 psi, 25/30 klbs wob, ROP avg 18.2 ft/hr.
08:30 – 09:30	Accum drill rotating from 7727 ft to 7772 ft, 540 gpm, press 3100 psi, 15/22 klbs wob, 65 rpm, tq 10/14 kft-lb, ROP avg 30.3 ft/hr.
09:30 – 11:00	Accumulate circulating, reaming, surveys & conections. Last survey at 7703 ft, inc 7.9º, azm 243.5ª.
11:00 – 12:30	Drill sliding from 7772 ft to 7792 ft, 520 gpm, press 3050 psi, 25/30 klbs wob, ROP avg 17.4 ft/hr. Last geology sample at 7580 ft 100% Clyst and trz. dark Clyst (possible next Upper Basal Salinas Top).
12:30 – 13:00	Continue circulate and perform check shock at 7733 ft, inc 7.6º, azm 243.2ª.
13:00 – 15:00	Condition hole to short trip. Circulate with 550 gpm, 3100 psi a bottom up & pump 30 bbl viscosity pill 11.8 ppg, 150 sec/qt and continue circulate with 580 gpm, 3250 psi up to clean shaker.
15:00 – 17:30	Perform short trip. POOH 8 1/2" directional BHA from 7792 ft to 5840 ft. POOH from 7792 ft to 7039 ft with back reaming (D/U 190 klb) and continue POOH free with D/U 230 klb.
17:30 – 18:00	Rig Services.
18:00 – 20:00	RIH from 5840 to 7792 ft without problems. Wash down last two stands with 450 gpm and 2800 psi.
20:00 – 20:30	Circulate a bottom up with 540 gpm, 3000 psi to continue drilling.
20:30 – 22:30	Drill sliding from 7792 ft to 7828 ft, 540 gpm, press 3200 psi, 25/30 klbs wob, ROP avg 18.7 ft/hr.
22:30 – 00:00	Drill rotating from 7828 ft to 7854 ft, 540 gpm, press 3150 psi, 15/22 klbs wob, 60 rpm, tq 10/14 kft-lb, ROP avg 25.3 ft/hr. Last geology sample at 7850 ft 100% Clyst.

December 31st, 2012

00:00 – 03:30	Accumulate drill sliding from 7854 ft to 7904 ft, 520 gpm, press 3150 psi, 25/30 klbs wob, ROP avg 15.3 ft/hr.
03:30 – 05:30	Accumulate drill rotating from 7904 ft to 7977 ft, 540 gpm, press 3200 psi, 15/22

	klbs wob, 60 rpm, tq 10/14 kft-lb, ROP avg 38 ft/hr.
05:30 – 06:00	Accumulate circulating, reaming, surveys & conections. Last survey at 7893 ft, inc 4.7º, azm 230.5ª. Last geology sample at 7970 ft 100% Clyst.
06:00 – 10:00	Accumulate drill rotating from 7977 ft to 8101 ft, 540 gpm, press 3150 psi, 15/22 klbs wob, 65 rpm, tq 10/14 kft-lb, ROP avg 38.2 ft/hr.
10:00 – 13:30	Accumulate drill sliding from 8101 ft to 8195 ft, 520 gpm, press 3200 psi, 25/30 klbs wob, ROP avg 23.5 ft/hr.
13:30 – 15:00	Accumulate circulating, reaming, surveys & conections. Last survey at 8083 ft, inc 3.3º, azm 239.3ª. Last geology sample at 8190 ft 90% Clyst, 10% Sst.
15:00 – 16:30	Drill sliding from 8195 ft to 8230 ft, 530 gpm, press 3150 psi, 25/30 klbs wob, ROP avg 23.4 ft/hr.
16:30 – 21:30	Accumulate drill rotating from 8230 ft to 8423 ft, 540 gpm, press 3150 psi, 14/16 klbs wob, 65 rpm, tq 13/16 kft-lb, ROP avg 38.5 ft/hr.
21:30 – 00:00	Accumulate circulating, reaming, surveys & conections. Last survey at 8368 ft, inc 3.4º, azm 241.6ª. Last geology sample at 8420 ft 100% Clyst. Happy New Years 2013.

January 01st, 2013

00:00 – 05:00	Accumulate drill rotating from 8423 ft to 8513 ft, 520 gpm, press 3150 psi, 14/16 klbs wob, 65 rpm, tq 13/16 kft-lb, ROP avg 36.6 ft/hr.
05:00 – 06:00	Accumulate circulating, reaming, surveys & connection. Last survey at 8557 ft, inc 4.7º, azm 230.0ª. Last geology sample at 8510 ft, 100% Clyst.
06:00 – 16:30	Accumulate drill rotating from 8513 ft to 8994 ft, 520 gpm, press 3200 psi, 15 klbs wob, 65 rpm, tq 13/16 kft-lb, ROP avg 37.1 ft/hr.
16:30 – 19:00	Accumulate circulating, reaming, surveys & connection. Pump 30 bbl HVP to clean hole. Last survey at 8937 ft, inc 6.6º, azm 219.3ª. Last geology sample at 8990 ft, 50% Clyst, 30% Sd, 20% Sst.
19:00 – 21:00	Mud loss was observed 50 bbl, continue circulate with pump rate of 400 gpm, 2050 psi and Mud Engineers condition mud system with bridge materials (Calcium Carbonate 150 & 250 mesh, 8 ppb).
21:00 – 22:00	Continue circulate with 500 gpm, 2950 psi. Pump 40 bbl HVP, 120 sec/qt and displace to clean hole and circulate up to clean shakers. Spot 35 bbl LCM pill (bridge materials) & balance pump on bottom hole.
22:00 – 00.00	Perform short trip. POOH 8 1/2" directional BHA from 8993 ft to 8034 ft, with back reaming (D/U 230 klb).

January 02nd, 2013

00:00 – 02:00	Continue perform short trip. POOH 8 1/2" directional BHA from 8034 ft to 7700 ft, with back reaming (D/U 220 klb). RIH from 7700 ft to 8993 ft last two stand wash down with 250 gpm and 1600 psi.
02:00 – 03:00	Circulate a bottom up with 400 gpm, 2150 psi and 60 rpm, don´t have mud loss.
03:00 – 20:00	Accumulate drill rotating from 8994 ft to 9420 ft, 450/500 gpm, press 2600/3200 psi, 15/23 klbs wob, 65/60 rpm, tq 15/18 kft-lb, ROP avg 26.1 ft/hr.
20:00 – 00:00	Accumulate circulating, reaming, surveys & connection. At 9300 ft pump 30 bbl HVP to clean hole. Last survey at 9316 ft, inc 6.4º, azm 209.8ª. Last geology sample at 9380 ft, 60% Clyst, 30% Sst.

January 03rd, 2013

00:00 – 04:00	Accumulate drill rotating from 9420 ft to 9561 ft, 480 gpm, press 2950 psi, 18/23 klbs wob, 60 rpm, tq 15/17 kft-lb, ROP avg 34.5 ft/hr.

04:00 – 06:00	Accumulate circulating, reaming, surveys & connection. Last survey at 9506 ft, inc 6.4º, azm 199.0ª. Last geology sample at 9560 ft, 90% Clyst and 10% Sst.
06:00 – 17:00	Accumulate drill rotating from 9561 ft to 9800 ft (TD), 480/500 gpm, press 2950/3100 psi, 18/23 klbs wob, 65 rpm, tq 15/19 kft-lb, ROP avg 23.5 ft/hr.
17:00 – 20:00	Accumulate circulating, reaming, surveys & connection. Last survey at 9745 ft, inc 7.3º, azm 189.5ª. Last geology sample at 9800 ft, 100% Clyst.
20:00 – 22:00	Condition on bottom hole to maneuver 5" DP due high torque and drag (reaming and back reaming). Several times during back reaming stuck drilling string, continue menuever to circulate and reciprócate.
22:00 – 00:00	Continue circulate with 500 gpm and 3100 psi. Pump 40 bbl HVP, 140 sec/qt and displace to clean hole and circulate up to clean shakers.

January 04th, 2013

00:00 – 06:00	POOH 8 1/2" directional BHA from 9800 ft to 6600 ft with back reaming (D/U 230 klb) and circulate with 400 gpm, 2600 psi.
06:00 – 07:00	Perform flow check at 6600 ft by 10 min, ok. Pump 20 bbl sluge pipe.
07:00 – 12:30	Continue POOH 8 1/2" BHA with drag normal from 6600 ft to surface. L/D BHA (MWD monel, UBHO, 8 1/4 STB, 6 3/4" Mud motor, PDC Bit).
12:30 – 13:30	Pepesa crew condition rig floor and platform.
13:30 – 18:30	M/U & RIH 8 1/2" slick BHA with 8 1/2" rr-tricone bit Smith, x/o, 6 3/4" Bit Sub, 6 3/4" STB, x/o, 2 jt x 6 1/2" DC, x/o, 18 jt 5" HWDP, 6 3/4" Hydraulic Jar, 6 jt 5" HWDP, BHA: 821.45 ft. Continue RIH with 5" DP from 821.45 to 5804 ft, fill pipe with 1000 ft.
18:30 – 19:30	Circulate a bottom up at 5804 ft with 350 gpm, 1200 psi. Pepesa condition area to rig services.
19:30 – 20:30	Cut off and slip 1 1/4" drilling line 150 ft. Change gravel jaws and TD rig services.
20:30 – 23:00	Continue RIH 8 1/2" slick BHA from 5804 ft to 8963 ft, where find restriction.
23:00 – 00:00	Continue wash down 350 gpm, 1300 psi, from 8963 ft to 9574 ft.

January 05th, 2013

00:00 – 02:00	Continue wash down 350 gpm, 1300 psi, from 9574 ft to 9800 ft. From 9800 ft to 9780 ft observed tight hole, working string with rotation & circulation due high torq and drag condition hole up to 9780.
02:00 – 03:30	Condition hole, circulate a bottom up & 40 bbl pump HVP of 11.8 ppg, 150 seg/qt. Continue circulate to displace pill with 550 gpm, 3000 psi up to clean shakers.
03:30 – 13:00	POOH 8 1/2" slick BHA from 9780 ft to 7200 ft with back reaming 350 gpm, 1300 psi. Perform flow check by 10 min, ok. Continue POOH 8 1/2"slick BHA from 7200 ft 5800 ft with normal drag. Continue POOH.
13:00 – 15:00	Pepesa crew L/D belt nipple & flowline sleeve. R/U 13 5/8" flange with 7 1/16" WTF adapter, and install lubricator. WTF crew R/U pulleys and equipment on rig floor and platform.
15:00 – 15:30	Perform safety and operating meeting with WTF, Pepesa, TGT, and Savia crew.
15:30 – 16:30	WTF crew M/U logging tools (GR - Den - Neu - LAT - SGR - Caliper).
16:30 – 17:30	RIH to 6000 ft and log from 6000 ft to 5800 ft, correlate depth, calibrate and check tools (csg shoe at 5887 ft).
17:30 – 18:00	RIH logging tools from 6000 ft and tag at 7160 ft, Attempted several times to pass without success.
18:00 – 00:00	WTF begin log from 7160 ft to 5887 ft & continue POOH logging tool to surface.

January 06th, 2013

00:00 – 01:00	L/D WTF logging tools & lubricator.
01:00 – 03:00	R/D 13 5/8" flange with 7 1/16" WTF. Pepesa crew R/U belt nipple & sleeve flowline.
03:00 – 07.30	M/U & RIH 8 1/2" slick BHA with 8 1/2" rr-tricone bit Smith, x/o, 6 3/4" Bit Sub, 6 3/4" STB, x/o, 2 jt x 6 1/2" DC, x/o, 18 jt 5" HWDP, 6 3/4" Hydraulic Jar, 6 jt 5" HWDP, BHA: 821.45 ft. Continue RIH.
07:30 – 08:00	Broke gels and circulate with 510 gpm, 1500 psi to continue RIH.
08:00 – 09:00	Continue RIH from 5840 ft to 7155 ft without problems.
09:00 – 16:30	Continue RIH from 7155 ft to 8890 ft, wash down with 550 gpm, 2150 psi and 70 rpm, work drilling string in Several point with rotation & circulation due high torq and drag. TGT Chromatograph record 6500 gas unit.
16:30 – 17:00	Circulate to displace 6500 units gas with 350 gpm and 1250 psi.
17:00 – 18:30	Continue wash down from 8890 ft to 8940 ft, drilling string tag at 8940 ft, work string and pass with rotation & circulation. Continue wash down from 8940 ft to 9700 ft with 500 gpm, 1650 psi.
18:30 – 19:00	At 9700 ft TGT Chromatograph record 8800 gas units, circulate to displace 8800 units gas with 330 gpm and 1000 psi.
19:00 – 20:00	Wash down from 9700 ft to 9800 ft with 550 gpm, 2200/2100 psi and 70 rpm. Meanwhile Pepesa crew perform well control training to blowout on rig site.
20:00 – 23.00	Circulate with 600 gpm, 2200 psi and 75 rpm. Pump 40 bbl heavy viscosity pill, 13.5 ppg, 140 sec/qt, displace and circulate up to clean shakers. Observed, pump pressure decrease gradually up to 1600 psi with 600 gpm, perform check mud pump and lines without problems, is possible that drilling string have a wash out.
23:00 – 00:00	POOH 8 1/2" slick BHA from 9800 ft to 9100 ft with circulation 500 gpm, 1000 psi.

January 07th, 2013

00:00 – 01:00	Continue POOH slick BHA from 9100 ft to 8600 ft with drag normal (D/U 270 klbs). On 5" DP # 40 of DP tally find a DP with wash out (1/4" x 1.5").
01:00 – 01:30	RIH slick BHA from 8600 ft to 9800 ft, last two stand wash down with 500 gpm and 2350 psi (normal stand pipe pressure), NPT for PEPESA.
01:30 – 03:30	Circulate with 590 gpm, 2980 psi and 75 rpm. Pump 40 bbl viscosity pill, 120 sec/qt, displace and circulate up to clean shakers, NPT for PEPESA.
03:30 – 04:00	POOH 8 1/2" slick BHA from 9800 ft to 9300 ft with circulation 370 gpm, 1250 psi, NPT for PEPESA.
04:00 – 06:00	Continue POOH 8 1/2" slick BHA from 9300 ft to 7580 ft with drag normal (D/U 275), NPT for PEPESA.
06:00 – 11:30	Continue POOH 8 1/2" slick BHA from 7580 ft to surface with drag normal (D/U 220), Perform flow check at 7580 ft, 5850 ft (9 5/8" csg shoe) & 855 ft by 10 min, ok.
11:30 – 13:00	Pepesa crew L/D belt nipple & flowline sleeve. R/U 13 5/8" flange with 7 1/16" WTF adapter, install lubricator extension. WTF R/U pulleys and equipment on rig floor.
13:00 – 13:30	Perform safety and operating meeting with WTF, Pepesa and Savia crew to run logging tools.
13:30 – 14:00	M/U WTF logging tools (CMI:caliper, MDL:Resistivity, MSS:Sonic, GPD: Density, MDN: Neutrón) on rig floor.
14:00 – 18:00	WTF run logging tools from surface to 7715 ft. At 7715 ft tag, Attempted Several times to pass without success.

18:00 – 20:30	WTF begin log from 7715 ft to 7100 ft & continue POOH logging tool to surface. L/D Logging tools.
20:30 – 21:00	WTF crew change logging tools configuration, remove MSS:Sonic log, and remove finder tools.
21:00 – 00:00	WTF run logging tools (CMI:caliper, MDL:Resistivity, GPD: Density, MDN: Neutrón) from surface to 7723 ft. At 7723 ft tag and observe restriction to pass. Attempted Several times and pass from 7715 ft. WTF operator perform maneuver to pass without success.

January 08th, 2013

00:00 – 02:30	WTF begin log from 7899 ft to 7715 ft & continue POOH logging tool to surface. L/D Logging tools, lubricator, pulleys and equipment. Decided to run TDL (Thru Drill Pipe Logging) to reach bottom hole and logging.
02:30 – 04:00	Pepesa crew R/D 13 5/8" flange with 7 1/16" WTF adapter. P/U belt nipple & sleeve flowline.
04:00 – 14:00	M/U & RIH 5" Mule Shoe, 5" DP to 9800 ft to run TDL, previously all 5" DP was run rabbit (2.6"), Fill pipe each 1000 ft, and tag DP at 7720 ft and 8040 ft. the last 10 stands was wash down to bottom hole as a caution with 400 gpm, 1500 psi.
14:00 – 16:00	Circulate with 500 gpm, 2180 psi and 60 rpm. Pump 40 bbl viscosity pill, 120 sec/qt, displace and continue circulate up to clean shakers with 550 gpm, 2550 psi.
16:00 – 16:30	POOH 5" DP from 9800 ft to 8475 ft (mule shoe).
16:30 – 18:30	Connect 4 1/2" IF x 7 1/16" adapter to install lubricator. WTF R/U pulleys and logging equipment on rig floor.
18:30 – 20:00	M/U WTF logging tools (CMI:caliper, MDL:Resistivity, GPD: Density, MDN: Neutrón). RIH logging tools thru 5" DP (TDL) to 8470 ft, correlate depth, calibrate and check tools.
20:00 – 21:30	RIH WTF logging tools to 9785 ft and begin logging from 9785 ft to 9500 ft. Wireline drum stop due present problems with WTF Hydraulic generator logging cabin.
21:30 – 00:00	WTF, Pepesa and ITS mechanics, attempt to repair the hydraulic generators of logging cabin, without success (NPT for WTF).

January 09th, 2013

00:00 – 17:00	WTF, Pepesa and ITS mechanics, continue attempt to repair the hydraulic generators of logging cabin, without success. (NPT for WTF). Meanwhile Pepesa driller move TD upwards and downwards, Waiting WTF mechanics and hydraulic generator spare part.
17:00 – 20:00	Arrive to location Ferreyros technician, review WTF generators and find a burned sensor and fuel pump inoperative.
20:00 – 22:30	Condition platform to locate the logging wireline.
22:30 – 23:00	Perform safety and operating meeting with WTF, Pepesa and Savia crew to recover wireline and logging tools with TD.
23:00 – 00:00	WTF & Pepesa organize rig floor and install "T" to support logging wireline and WTF operator take tension and weight.

January 10th, 2013

00:00 – 02:30	Pepesa & WTF crew organize rig floor, condition 2 clamps type "T" (bolts and nuts test). Install T clamps and perform tension test, ok.

	WTF Engineers takes measure of wireline by each run of TD (87 ft by TD run) and calibrate depth.
02:30 – 09:30	WTF & Pepesa recover wireline from 9760 ft to 6300 ft, WTF trip speed to pick up wireline in open hole 25 ft/min, WTF Engineers perform tension control locate on the head logging tools. (weak point set at 6 klb) and monitoring the Martin Decker parameters. Pepesa organize log wireline on platform.
09:30 – 10:30	"T" Clamps present cross threads of bolts and nuts, Pepesa welder change bolts and nuts of T Clamps.
10:30 – 11:00	Pepesa perform crew change, perform safety and operation meeting to continue recover wireline.
11:00 – 14:30	Continue WTF & Pepesa recover wireline from 6300 ft to 5600 ft, WTF Engineers continue monitoring tension control on head logging tools and Martin Decker parameters. Pepesa continue organize log wireline on platform.
14:30 – 15:30	Change maneuver (install dead line and pulleys on rig floor) to recover 175 ft of wireline by each run of TD, perform test, ok.
15:30 – 21:30	Continue WTF & Pepesa recover wireline from 5600 ft to surface, WTF Engineers continue monitoring tension control on head logging tools and Martin Decker parameters. Pepesa continue organize log wireline.
21:30 – 22:30	WTF crew recover all wireline and L/D logging tools (CMI, MDL, GPD & MDN), lubricator, pulleys and equipment.
22:30 – 00:00	Pepesa connect TD on drill pipe string and circulate to break gels and continue circulate with 300/500 gpm, 1100/1650 psi. Continue circulation to displace bottom gas units (1500 U).

January 11th, 2013

00:00 – 02:00	Wash down from 8460 ft to 9800 ft with 400 gpm, 1100 psi and 70 rpm.
02:00 – 05:30	Mud Engineer perform treatment and conditioning with caustic soda, dispersant, hydrates and adjust MW: 11.8 ppg of the mud system. Circulate with 500 gpm, 2100 psi and 75 rpm. Pump 40 bbl sweep pill, 140 sec/qt, displace and circulate up to clean shakers.
05:30 – 11:30	POOH 5" DP from 9800 ft to 1000 ft with normal drag. Perfom flow check at 5800 ft and 1000 ft by 10 min, ok.
11:30 – 12:30	Pepesa crew cut and slip 120 ft 1 1/4" drilling lines.
12:30 – 13:30	Continue POOH 5" DP from 1000 ft to surface, L/D mule shoes.
13:30 – 14:00	M/U 5" DP and running tool to recover wear bushing, L/D running tool and 5" DP.
14:00 – 15:00	Pepesa L/D hawk jaw and condition rig floor, change 5" hyd elevator by 5.5" elevator and change 5 ft links by 15 ft links. R/U ITS 5 1/2" csg running tools (Install hydraulic power tong, side door elevator and spider) on rig floor.
15:00 – 15:30	Perform safety & operational meeting with Pepesa, ITS, Tranmarsa, TGT & Savia personnel to run 5.5" csg.
15:30 – 16:00	P/U & M/U 5.5" drillable float shoe, 2 jt 5.5" csg 17 ppf, N-80, BTC. Install 2 SR centralizer & install 5.5" drillable float collar 17 ppf, N-80, BTC. Perform float collar test, ok.
16:00 – 00:00	Run 155 jts 5.5" csg, 17 ppf, N-80, BTC at 5855 ft. Fill pipe each 500 ft. Install 32 bowl spring & 16 semi rigid centralizers.

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00:00 – 00:30	Circulate at 5855 ft to broke gels with 300 gpm and 400 psi.
00:30 – 01:00	ITS and Pepesa crew change side door elevator by spider, install fill up tool. While continue circulate with 300 gpm and 400 psi.
01:00 – 05:00	Run 224 jts 5.5" csg, 17 ppf, N-80, BTC at 8480 ft. Install 39 bowl spring & 17 semi rigid centralizers.
05:00 – 05:30	At 8480 ft, circulate to broke gels and circulate with 270 gpm and 400 psi.
05:30 – 07:00	Run 259 jts 5.5" csg, 17 ppf, N-80, BTC at 9767 ft. Install 39 bowl spring & 17 semi rigid centralizers.
07:00 – 09:30	Last joint No 259, 5.5" csg wash down to 9800 ft (csg shoe at 9798 ft) with 300 gpm and 280 psi.
09:30 – 11.00	Circulate with 320 gpm and 440 psi. Reciprocate 5.5" csg string up to 10 ft on rig floor, parameters D/U 280 lkb, D/D 140 klb, HL 230 klb. Medomack cement barge arrive to location at 09:40 hrs, Halliburton crew M/U cement lines from Medomack to rig floor, P/U cement lines, valves and quick latch cement head.
11:00 – 12.00	Stop circulation. L/D csg spider, fillup tool and spider elevator. M/U Side door elevator, install quick latch cement head, cement lines and valves.
12:00 – 13:00	Continue circulate and reciprocate on bottom with 280 gpm, 500 psi, with full return by shakers. Perform safety and operation meeting with Pepesa, Halliburton, TGT, Tramarsa and Savia crew.
13:00 – 13:30	Halliburton perform cement lines test w/ 3150 psi by 10 min, ok.
13:30 – 15:30	Begin cement job: Pump 60 bbl mud 11.8 ppg of low rheology, pump 20 bbl Mud Flush 8.4 ppg w/5 bpm, 470 psi, 50 bbl Turned Spacer 12.7 ppg w/5bpm, 450 psi. Drop bottom plug. Halliburton technician begin mixs cement and pump 284 bbl Halcem V, 13.5 ppg w/5 bpm, press 730 - 480 psi. pump 84 bbl ExpandaCem V, 15.2 ppg w/4 bpm, press 780 - 500 psi. Observed by shakers full return.
15:30 – 17:00	Drop top plug and displace w/227 bbl of mud 11.8 ppg w/7 - 2 bpm 600 - 980 psi, perform bump plug from 980 psi to 1500 psi by 5 min. Perform back flow 1.5 bbl, float collar valve, ok. leave closed cement head to ensure back flow. Csg shoe: 9798 ft, Float Collar: 9725 ft. Total cement used 1332 sxs (PacasmayoV).
17:00 – 18:30	WOC while Halliburton L/D cement lines and Pepesa untight riser bolts. L/D kill line, HCR, lines and hydraulics lines from Koomy. L/D Bell nipple and flow line sleeve.
18:30 – 20:00	Perform maneuver to lift 13 5/8" BOP stack, set casing hanger (slips) with 190 klb, ok.
20:00 – 23:00	Open Halliburton quick latch cement head, ok. L/D cement head, cut & retrieve 5.5" landing joint. N/D BOP 13 5/8" X 5M, drilling spool 13 5/8" x 5M, riser 13 5/8" x 5M.
23:00 – 00:00	Pepesa welder cut & bevel 5.5" casing and install tubing spool (section "C"). tighten bolts.

CONCLUSIONS AND RECOMMENDATIONS

- The **LO6-26XD**, is an Exploratory well, and was drilled in four phases for 5.5” Casing from 448 feet to 9798 feet.
- During 8.5” phase, it was used mud BARADRIL-N type with mud weight between 10.9 ppg and 11.8 ppg.
- The last survey took was at 9745.00 feet MD, 8907.05 feet TVD with 7.30º of inclination and 189.50 degrees azimuth.
- The reservoir Upper Basal Salina top structurally was found at 8870.00 ft MD (RT), 8037.67 ft. TVD (RT), at 844.00 ft more lower structurally.
- During trip, as is usual in petroleum industry, in order to a best control is recommended used Trip Tank, checking displacement or filling hole.
- It is necessary send lubricated pill in the finished run casing for cleaning hole before of the cementing operation.
- Due to high ROP´s reached with the PDC bit, was pumped heavy pills for clean hole.
- It is necessary to take care over all in sands in inclined wells due to the difficulty to maintain the pressure differential for controlling overpulls and then stuck pipes.