



TGT - LAB
REGISTROS GEOLOGICOS

FINAL WELL REPORT

WELL: LO6-28D

MARCH-APRIL 2013

SAVIA PERU S.A.



CONTENTS

INTRODUCTION

GEOLOGICAL REPORT

- WELL AND RIG DATA
- LOCATION MAP
- FORMATION TOPS
- STRATIGRAPHIC COLUMN
- STRATIGRAPHIC SEQUENCE
- LITHOLOGICAL DESCRIPTION
- GAS SHOW
- FLUORESCENCE DATA RECORD
- DRILLING PROGRESS CURVE
- BIT RECORD
- DAILY OPERATIONS REPORTS
- CONCLUSIONS AND RECOMENDATIONS

GRAPHICS

- FORMATION EVALUATION LOG (MEASURED DEPTH) SCALE 1:500
- FORMATION EVALUATION LOG (TRUE VERTICAL DEPTH) SCALE 1:500
- CD MASTER WITH FINAL WELL REPORT

INTRODUCTION

TGT – LAB S.A.C. started Mud Logging Operations on the Well LO6-28D on March 27th, 2013 at 430 feet depth, and finished on April 25th, at the depth of 8600.0 feet TD(RT), with 5.5" Casing cementation; Casing Shoe at 8585 feet.

Origin:	
Surface Northing	9'508,651.52 m.
Surface Easting	459,049.64 m.
Main objective:	Rio Bravo Formation
Objective Northing	9'507,752.68 m
Objective Easting	458,420.26 m
Kelly Bushing	50 ft.
Water depth	-335 ft.
Total Depth	8600 ft.
Reference	DATUM-WGS -84 UTM

It is proposed to drill a development well LO6-28D to produce oil of Rio Bravo reservoir in Lobitos oil field.

The well LO6-28D will be drilled from platform Lobitos 6 and will reach a final depth of 4936.56 feet (TVD).

The geological control for Rio Bravo 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 LO6-28D from 430 feet measured depth (Rotary Table) from March 27th, 2013; to the Final Total Depth at 8600 feet that was reached on April 19th, 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 pneumatic shaker box

Gas Chromatograph FID SRI 8610C gas cycle 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 430 to 5000 feet; and each 10 feet from 5000 feet to 8600 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.

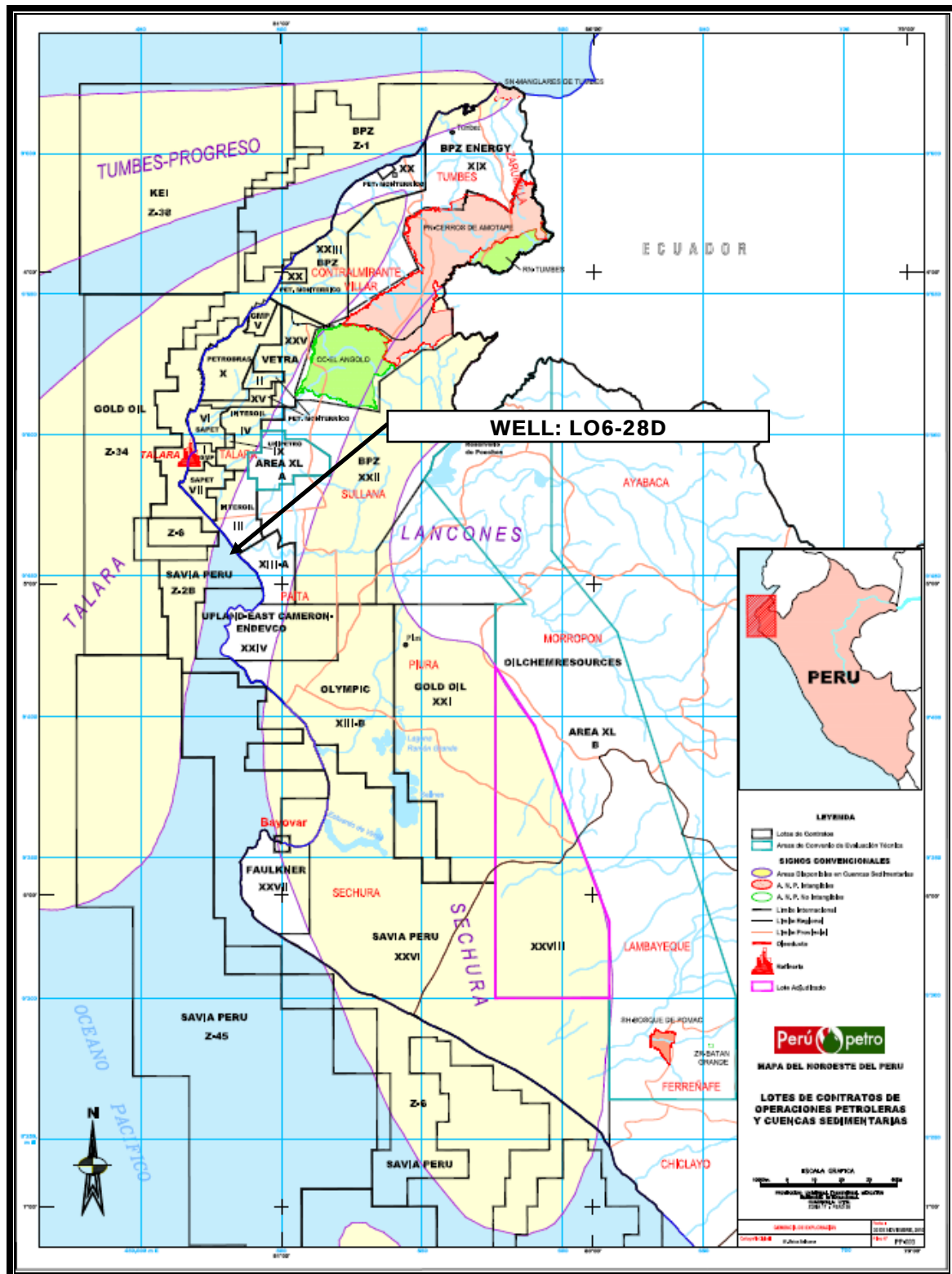


GEOLOGICAL REPORT



WELL AND RIG DATA

Company:	SAVIA PERU	
Well Name:	LO6-28D	
Well Type:	DEVELOPMENT	
Field:	LOBITOS OFFSHORE	
Basin:	TALARA	
State:	PIURA	
Country:	PERU	
Coordinates (WGS-84 UTM):	North	East
Origin:		
Main Objective: (RIO BRAVO FM)	9'507,752.68 m	458,420.26 m
Rotary table:	50 ft.	
Water Depth:	-335 ft.	
Spud Date:	MARCH 25 th 2013	
End Date:	APRIL 19 th 2013	
Total Depth:	8600.0 ft. MD (RT); 4936.56 ft. TVD (RT)	
Drilling Contractor / Rig:	PEPESA / P-40	
Drilling Fluids:	HALLIBURTON	
Logging Contractor:	SCHLUMBERGER	
Mud logging / Unit:	TGT – LAB	
Well site Geologist:	D. PAZ	
TGT-LAB Geologist:	G. CARDOZA / L. AGURTO / O. OJEDA / R. OTOYA.	





FORMATION TOPS

WELL LO6-28D

Elevación RKB:

50 ft

SEA DEPTH:

335 ft

ROTARY TABLE: 50 ft.	PREDICTED TOPS			LITHOLOGIC TOPS BY SAMPLES		
FORMATION/ZONE	MD (ft)	DEPTH TVD (ft)	DEPTH	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)
	RT (ft)		SSTVD (ft)	RT (ft)		
Helico						
Lobitos	802,0	800,0	-750,0			
Terebratula	-	-	-	2335,0	1856,17	-1806,17
Chacra	2866,0	2150,0	-2100,0	2587,0	1981,29	-1931,29
Rio Bravo	5270,0	3280,0	-3230,0	5040,0	3203,30	-3153,30
Palegreda	9340,0	5193,0	-5143,0	-	-	-
Final T.D.	9440,0	5240,0	-5190,0	8600,0	4936,56	-4886,56



AGE		FORMATION/MEMBER	THICKNESS (ft)	LITHOLOGY	DESCRIPTION
CENOZOIC	TERTIARY	EOCENE	LOBITOS	846.2	CLAYSTONE: olv blk, olv gry, mnr med dk gry, occ brnsh gry, ea, biky-sbbiky, sbtab i/p, occ amor, mod sft-mod frm, loc sily, sli sol, micmic, miccarb, sli calc-calc. SANDSTONE: med dk gry, olv gry, occ med gry, v-f qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, arg mtrx i/p, calc cmt, mod fri-mod consol, w/dk mnrls&glau incl, p vis por. N.O.S.
					CLAYSTONE: olv blk, olv gry, mnr med dk gry, occ brnsh gry, ea, biky-sbbiky, sbtab i/p, occ amor, mod sft-mod frm, loc sily, sli sol, micmic, miccarb, sli calc-calc. SANDSTONE: med dk gry, olv gry, occ med gry, v-f qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, arg mtrx i/p, calc cmt, mod fri, loc mod consol, w/dk mnrls&glau incl, occ miccarb, p vis por. N.O.S.
					CLAYSTONE: med dk gry, olv blk, loc brnsh blk, occ olv gry, ea, biky-sbbiky, loc sbtab, mod sft-mod frm, sily i/p, sli sol i/p, micmic, miccarb, sli calc-n calc. CLAYSTONE: olv blk, loc olv gry, med dk gry, occ brnsh blk, ea, biky-sbbiky, loc sbtab-sbply, mod sft-mod frm, sily, sli sol, micmic, miccarb, sli calc-n calc.
			TEREBRATULA	125.1	SAND: wh, 60% m, 20% f, 20% crs qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, w/dk lits. N.O.S. SANDSTONE: lt gry, med gry, occ med dk gry, v-f qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, arg mtrx, loc calc cmt, mod fri-mod consol, w/dk mnrls&glau incl, p vis por. N.O.S. SAND: wh, 60% v, 30% f, 10% med, tr crs qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, loc w/dk lits. N.O.S.
			CHACRA	1222.0	CLAYSTONE: med dk gry, olv gry, loc brnsh gry, olv blk, occ dk yelsh brn, ea i/p, biky-sbbiky, loc sbtab-sbply, mod sft-mod frm, occ sily, sli sol, micmic, miccarb, n calc. SILTSTONE: med dk gry, med gry, ea, biky-sbbiky, amor i/p, mod frm, micmic, miccarb, occ micpyr, gd-vf sst, sli calc. SANDSTONE: lt gry, med lt gry, med gry, occ med dk gry, v-f qtz gr, hyal, trnsl, sbang-sbrnd, w/ srt, scs arg mtrx, loc calc cmt, mod consol-mod fri, w/dk mnrls& glau incl, p vis por. N.O.S.
					CLAYSTONE: med dk gry, olv gry, loc olv blk, med gry, occ brnsh gry, dk yelsh brn, ea, biky-sbbiky, sbtab i/p, mod frm-mod sft, sily i/p, sli sol, micmic, miccarb, sli calc. SILTSTONE: med gry, med dk gry, ea, biky-sbbiky, mod frm, micmic, miccarb, loc gd-vf sst, sli calc. CLAYSTONE: med dk gry, olv gry, loc olv blk, med gry, occ brnsh gry, dk yelsh brn, ea, biky-sbbiky, sbtab i/p, mod frm-mod sft, sily i/p, sli sol, micmic, miccarb, sli calc. DOLOMITE: dk yelsh brn, pl yelsh brn, ea, biky-sbbiky, sbtab i/p, frm-mod frm, miccarb.
					CLAYSTONE: med dk gry, olv gry, olv blk, occ brnsh gry, ea, biky-sbbiky, mntr sbtab i/p, occ sblam, mod frm, mntr mod sft, sily i/p, sli sol, micmic, miccarb, n-sli calc. SILTSTONE: med dk gry, olv gry, loc med gry, ea, biky-sbbiky, loc sbtab, amor i/p, mod frm, micmic, v miccarb, occ micpyr, gd-vf sst, sli calc. CLAYSTONE: med dk gry, olv gry, olv blk, occ brnsh gry, ea, biky-sbbiky, mntr sbtab i/p, occ sblam, mod frm, mntr mod sft, sily i/p, sli sol, micmic, miccarb, n-sli calc.
			RIO BRAVO	1733.3	SANDSTONE: med dk gry,dk gnsh gry, med gry, v-f qtzgr, hyal, trnsl, sbang- sbrnd,w/ srt, arg mtrx i/p, calccmt, mod consol, ti i/p,w/ glau & dk mnrls incl,miccarb i/p, p vis por. N.O.S. CLAYSTONE: med dk gry,olv blk, occ brnsh gry, ea,biky-sbbiky, mntr sbtab, occsblam, mod frm, sily i/p,w/ glau incl, micmic, miccarb,n-sli calc. SILTSTONE: med dk gry, olvgry, occ med gry, ea,biky-sbbiky, amor i/p, modfrm, micmic, miccarb, grad vfst, sli calc.
SANDSTONE: med lt gry,med gry, v-f qtz gr, hyal,sbang-sbrnd, w/ srt, scs argmtrx, calc cmt, mod fri-fri,w/dk mnrls incl, miccarb i/p,p-fr vis por. SAND: wh, 70% m, 20% f,10% crs qtz gr, hyal, trnsl,sbang-sbrnd, w/ srt. Fluorescence:30% sppty pl yel natfluor, slw, wk, frnt, even, yelshwh cut fluor, mky wh res ringunder U. V. It, n res ring atnat lt. POS.					
CLAYSTONE: med dk gry,occ brnsh gry, ea,biky-sbbiky, loc sbply, modfrm, sily i/p, micmic, miccarb,n calc. SILTSTONE: med dk gry,med gry, ea, biky-amor, modfrm, grad vf sst, loc pyr,micmic, miccarb, n calc.					
SANDSTONE: med lt gry,med gry, vf, loc f qtz gr, hyal,sbang-sbrnd, w/ srt, scsalc cmt, mod fri, occ pyr,w/dk mnrls incl, p vis por. SAND: wh, 90% f, 10% mqtz gr, hyal, trnsl,sbang-sbrnd, w/ srt. CLAYSTONE: med dk gry,loc dk gry, occ brnsh gry, ea,biky-sbbiky, loc sbtab, modfrm-frn, sily i/p, micmic,miccarb, n calc.					
		SANDSTONE: lt gry, med ltgry, f, tr m qtz gr, hyal,sbang-sbrnd, w/ srt, loc argmtrx, calc cmt, mod consol,loc fri, w/ dk mnrls incl, p vis por. NOS. SAND: wh, 60% f, 40% mqtz gr, hyal, trnsl,sbang-sbrnd, w/ srt. Fluorescence: 5-10% pin pnt pl yelnat fluor, slw, wk, frnt, even,yelsh wh cut fluor, mky whres ring under U. V. It, n resing at nat lt. POS.			
		CLAYSTONE: dk gry, meddk gry, occ olv blk, ea,biky-sbbiky, loc sbply-sblam,mod frm-frn, loc sily,micmic, miccarb, n calc. SANDSTONE: med lt gry,med gry, v-f qtz gr, hyal,sbnd, w/ srt, loc arg mtrx,scs calc cmt, mod consol, w/dk mnrls incl, p vis por. NOS.			
TOTAL DEPTH: 8600.0 ft. MD (RT), 4936.56 ft. TVD (RT)					



STRATIGRAPHIC SEQUENCE

WELL: LO6-28D

The Stratigraphy Column expected in this well was the same according to correlations with the original prognosis, consists of the following Formations and Members: Lobitos, Terebratula, Chacra, Rio Bravo of Tertiary age.

TGT LAB started logging into Lobitos Member (Talara Formation) at 430 feet to the total depth on Rio Bravo at 8600 feet MD.

CENOZOIC

TERTIARY

TALARA FORMATION

LOBITOS MEMBER

Interval: 0 to 2335 feet

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

Claystone: olive black, olive gray, locally dark gray, earthy, blocky to subblocky, firm to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.

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

Sand: white, 60% fine, 20% very fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted, with dark and green fragment lithics.

At the lower section the lithology was conformed mainly Claystone and small lens of Dolomite and Siltstone.

Claystone: olive black, olive gray, medium dark gray, occasionally brownish gray, dark yellowish brown, earthy, blocky to subblocky, locally subtabular, amorphous, moderately soft to moderately firm, occasionally silty, slightly soluble, occasionally with glauconite inclusions, micromicaceous, microcarbonaceous, calcareous.

Dolomite: dark yellowish brown, pale yellowish brown, earthy, blocky to subblocky, moderately firm to firm, microcarbonaceous.

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



TEREBRATULA MEMBER

Interval: 2335 to 2587 feet

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

SAND: white, 60% medium, 20% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. No Oil Show.

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

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

Accessories: calcite, pyrite, mica, coal, glauconite.

CHACRA FORMATION

Interval: 2587 to 5040 feet

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

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

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

Dolomite: dark yellowish brown, pale yellowish brown, earthy, blocky to subblocky, firm to moderately firm, microcarbonaceous.

At the lower section:

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

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

Accessories: calcite, pyrite, limestone, coal, glauconite, dolomite.

RIO BRAVO FORMATION

Interval: 5040 to 8600 feet

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

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

Sand: white, 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted.

Sandstone: medium light gray, medium gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity.

Fluorescence: NVOS, traces-30% spotty 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. POS.

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

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

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

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

Sandstone: medium light gray, locally medium gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity.

Fluorescence: NVOS, 5-10% 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. POS.

Claystone: medium dark gray, earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.

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

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

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



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

Sandstone: light gray, medium light gray, fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity.

Fluorescence: NVOS, tr-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. POS.

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

Accessories: calcite, coal, pyrite, dolomite, glauconite, shell fragments, kaolinite, *Foraminifera Ind.* *Valvulineria sp.*

LITHOLOGICAL DESCRIPTION

WELL: LO6-28D

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
Started logging & Monitoring Data from 430 feet on March 27th, 2013 No sample On Shakers (Talara Formation) and continue Monitoring Data from 1011 feet in Lobitos Mbr.			
1011 – 1040	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	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, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 40% CEMENT.	
1040 – 1070	80	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	20	SANDSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1070 – 1100	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	10	SANDSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1100 – 1130	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	10	SANDSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
1130 – 1160	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	10	SANDSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, microfossils.	
1160 – 1190	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), 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 and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1190 – 1220	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	
	10	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 in part, calcareous cement, moderately friable,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1220 – 1250	90 10	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1250 – 1280	90 10	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous in part. 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 in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1280 – 1310	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1310 – 1340	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1340 – 1370	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1370 – 1400	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), minor medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite, microfossils.	
1400 – 1430	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite, microfossils.	
1430 – 1460	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, microfossils, dolomite.	
1460 – 1490	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, microfossils, dolomite.	
1490 – 1520	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, microfossils, dolomite.	
1520 – 1550	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, microfossils, dolomite.	
1550 – 1580	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite, coal.	
1580 – 1610	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite, coal.	
1610 – 1640	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), olive gray (5Y 4/1), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular in part, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite, coal.	
1640 – 1670	90 10	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), minor medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. SANDSTONE: medium dark gray (N4), olive gray (5Y 2/1), occasionally medium gray (N5), 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 and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1670 – 1700	60	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 in part, calcareous cement, moderately friable to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), minor medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite, dolomite.	
1700 – 1730	50 40 10	SAND: white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. 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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), minor medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, subtabular in part, occasionally amorphous, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to calcareous. Accessories: calcite.	
1730 – 1760	80 20	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), minor medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1760 – 1790	90 10	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), minor medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1790 – 1820	100 Tr	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately soft to moderately firm, locally silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to 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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1820 – 1850	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1850 – 1880	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite.	
1880 – 1910	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
1910 – 1940	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
1940 – 1970	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
1970 – 2000	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2000 – 2030	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2030 – 2060	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2060 – 2090	90 10	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to moderately hard. Accessories: calcite.	
2090 – 2120	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
2120 – 2150	100 Tr	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly 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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
2150 – 2180	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
2180 – 2210	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), minor brownish black (5YR 2/1), olive gray (5Y 4/1), earthy, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
2210 – 2240	100	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2240 – 2270	100	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), brownish black (5YR 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, coal.	
2270 – 2300	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), brownish black (5YR 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty, slightly soluble, micromicaceous, locally microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2300 – 2330	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), medium dark gray (N4), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite.	
2330 – 2360	60 40	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. No Oil Show. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, subblocky to blocky, minor subtabular, occasionally sublaminal, moderately soft to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
TEREBRATULA Mbr (TALARA FORMATION) TOP. AT 2335.0 ft. MD (RT); 1806.0 ft. TVD (RT)			
2360 – 2390	90 10	SAND: white (N9), 60% medium, 20% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. No Oil Show. CLAYSTONE: medium dark gray (N4), minor olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, occasionally subtabular, moderately soft to moderately firm, locally silty, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite.	
2390 – 2420	40 30 30	CLAYSTONE: medium dark gray (N4), minor olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, occasionally subtabular, moderately soft to moderately firm, locally silty, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 70% fine to medium, 30% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, with dark lithics. No Oil Show. Accessories: calcite.	
2420 – 2450	50 40 10	SAND: white (N9), 50% coarse, 30% medium, 20% very coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted, locally with dark lithics. No Oil Show. CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, glauconite.	
2450 – 2480	60 30 10	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show. SANDSTONE: light gray (N7), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, glauconite.	
2480 – 2500	60	SAND: white (N9), 80% very fine to fine, 20% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SANDSTONE: light gray (N7), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show.	
	10	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
2500 – 2510	60	SAND: white (N9), 80% very fine to fine, 20% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
2510 – 2540	80	SAND: white (N9), 60% very fine, 30% fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately moderately friable consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show.	
	10	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, mica, dolomite.	
2540 – 2570	70	SAND: white (N9), 60% very fine, 30% fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately moderately friable consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, mica, dolomite.	
CHACRA FM. TOP. AT 2587.00 ft. MD (RT); 1981.29 ft. TVD (RT)			
2570 – 2600	50	SAND: white (N9), 60% very fine, 30% fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), brownish gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately moderately friable consolidated, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, mica.	
2600 – 2630	60	SAND: white (N9), 70% very fine, 30% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), brownish gray (5YR 4/1), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
2630 – 2660	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally brownish black (5YR 2/1), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	
	40	SAND: white (N9), 60% very fine, 30% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	locally with dark lithics. No Oil Show. SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
2660 – 2690	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% very fine, 30% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
2690 – 2720	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, occasionally silty, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 70% very fine, 30% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
2720 – 2750	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately firm, occasionally firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SAND: white (N9), 70% very fine, 30% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal, dolomite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
2750 – 2780	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, occasionally firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 70% very fine, 30% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal, dolomite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
2780 – 2810	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, occasionally firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	grading to very fine sandstone, slightly calcareous. SAND: white (N9), 80% very fine, 20% fine, occasionally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, scarce argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
2810 – 2840	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, occasional firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally with dark lithics. No Oil Show.	
	Tr	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 30% CHEMICAL.	
2840 – 2870	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
2870 – 2900	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasional firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 30% CHEMICAL.	
2900 – 2930	90 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally brownish gray (5YR 4/1), olive black (5Y 2/1), occasionally dark yellowish brown (10YR 4/2), dark gray (N3), earthy in part, blocky to subblocky, locally subtabular, moderately soft to moderately firm, occasionally firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrictic, non to slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 40% CHEMICAL.	
2930 – 2960	80 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), olive black (5Y 2/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty, slightly soluble, micromicaceous, locally microcarbonaceous, occasionally micropyrictic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 40% CHEMICAL.	
2960 – 2990	70 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), olive black (5Y 2/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty, slightly soluble, micromicaceous, locally microcarbonaceous, occasionally micropyrictic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, dolomite.	
2990 – 3020	70 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), olive black (5Y 2/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, silty, slightly soluble in part, micromicaceous, locally microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite.	
3020 – 3050	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), olive black (5Y 2/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, locally microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous in part, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3050 – 3080	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), olive black (5Y 2/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to subplaty, moderately soft to moderately firm, silty in part, slightly soluble in part, micromicaceous, locally microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous in part, locally grading to very fine sandstone, slightly calcareous.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, firm to moderately hard, microcarbonaceous. Accessories: calcite.	
3080 – 3110	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), medium gray (N5), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, limestone, coal.	
3110 – 3140	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), medium gray (N5), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, limestone, coal.	
3140 – 3170	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), medium gray (N5), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally 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, coal.	
3170 – 3200	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), medium gray (N5), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal.	
3200 – 3230	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular in part, moderately soft to moderately soft, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3230 – 3260	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), dark gray (N3), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular in part, moderately soft to moderately soft, silty in part, slightly soluble, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3260 – 3290	70	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally brownish gray	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 Tr	(5YR 4/1), dark gray (N3), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, moderately soft to moderately soft, silty, slightly soluble, micromicaceous, locally microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), medium gray (N5), fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
3290 – 3320	80 20	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), dark gray (N3), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, moderately soft to moderately soft, silty, slightly soluble, micromicaceous, locally microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3320 – 3350	70 30 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, 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 firm, microcarbonaceous. Accessories: calcite, coal, pyrite, microfossils.	
3350 – 3380	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
3380 – 3410	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, 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.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL	
3410 – 3440	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, 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.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL	
3440 – 3470	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
3470 – 3500	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
3500 – 3530	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
3530 – 3560	70 30 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
3560 – 3590	70 30 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
3590 – 3620	70 30 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
3620 – 3650	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), medium gray (N5), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
3650 – 3680	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
3680 – 3710	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
3710 – 3740	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous. Accessories: calcite, pyrite, coal.	
3740 – 3770	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous. Accessories: calcite, pyrite, coal.	
3770 – 3800	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally sub laminar, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, firm to moderately firm, microcarbonaceous. Accessories: calcite, pyrite, coal.	
3800 – 3830	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately firm to firm, irregular fracture. Accessories: calcite, pyrite, coal.	
3830 – 3860	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 Tr	brown (10YR 4/2), earthy, subblocky to blocky, occasionally subtabular, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately firm to firm, irregular fracture. Accessories: calcite, pyrite, coal.	
3860 – 3890	80 20 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subplaty, locally subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
3890 – 3920	70 30 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, occasionally micropyrritic, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
3920 – 3950	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	(5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subplaty, occasionally subtabular, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
3950 – 3980	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subplaty, occasionally subtabular, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
3980 – 4010	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
4010 – 4040	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular in part, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
4040 – 4070	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
4070 – 4100	80 20 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), very to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
4100 – 4130	80 20	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, locally subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, pyrite.	
4130 – 4160	90 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, pyrite, coal.	
4160 – 4190	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, subtabular in part, occasionally sublaminar, moderately firm to moderately soft, silty in part, slightly soluble,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, pyrite, coal.	
4190 – 4220	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminal, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
4220 – 4250	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminal, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
4250 – 4280	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminal, moderately soft to moderately firm, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
4280 – 4310	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4310 – 4340	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4340 – 4370	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4370 – 4400	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4400 – 4430	60 40	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous. SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4430 – 4460	60 40	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous. SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4460 – 4490	60 40 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous. SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, 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, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
4490 – 4520	60 40	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminae, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous. SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm, very micromicaceous, microcarbonaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally micropyrritic, 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, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
4520 – 4550	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	40	SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, amorphous, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
4550 – 4580	50	CLAYSTONE: medium dark gray (N4), minor olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular in part, occasionally sublaminar, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	50	SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
4580 – 4610	60	CLAYSTONE: medium dark gray (N4), minor olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular in part, moderately firm to moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	SILTSTONE: medium dark gray (N4), olive gray (N4), minor medium gray (N5), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
4610 – 4640	50	CLAYSTONE: medium dark gray (N4), minor medium gray (N5), locally olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular in part, moderately firm to moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	50	SILTSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (N4), earthy, blocky to subblocky, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
4640 – 4670	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), locally olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	40	SILTSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (N4), earthy, blocky to subblocky, moderately firm, very micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
4670 – 4700	50	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular in part, moderately firm to moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, slightly to non calcareous.	
	50	SILTSTONE: medium dark gray (N4), locally medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		olive gray (N4), earthy, blocky to subblocky, moderately firm, very micromicaceous, locally microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
4700 – 4730	50	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	50	SILTSTONE: medium dark gray (N4), olive gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
4730 – 4760	50	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, moderately firm, locally moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	50	SILTSTONE: medium dark gray (N4), olive gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
4760 – 4790	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, subblocky to blocky, subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4790 – 4820	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), minor medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
4820 – 4850	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), occasionally olive black (5Y 2/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals and glauconite inclusions, occasionally microcarbonaceous, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
4850 – 4880	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	40	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrritic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite.	
4880 – 4910	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
4910 – 4940	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminal, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
4940 – 4970	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminal, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	40	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
4970 – 5000	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminal, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
5000 – 5010	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
5010 – 5020	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
5020 – 5030	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
5030 – 5040	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, tight in part, with dark minerals and glauconite inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite, pyrite.	
CHACRA FM. TOP. AT 5040.00 ft. MD (RT); 3203.30 ft. TVD (RT)			
5040 – 5050	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5050 – 5060	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: dark greenish gray (5GY 4/1), medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
5060 – 5070	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: dark greenish gray (5GY 4/1), medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
5070 – 5080	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrictic, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: dark greenish gray (5GY 4/1), medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, coal.	
5080 – 5090	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
5090 – 5100	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, minor moderately soft, silty in part, slightly soluble, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, very microcarbonaceous, occasionally micropyrilic, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
5100 – 5110	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrilic, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, with glauconite and	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.	
5110 – 5120	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, glauconite.	
5120 – 5130	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, glauconite. NOTE: SAMPLE CONTAMINATED WITH 40% CHEMICAL.	
5130 – 5140	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminae, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately consolidated, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, glauconite. NOTE: SAMPLE CONTAMINATED WITH 30% CHEMICAL.	
5140 – 5150	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
5150 – 5160	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular in part, occasionally sublaminar, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
5160 – 5170	40	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
5170 – 5180	40	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
5180 – 5190	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrictic, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
5190 – 5200	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
5200 – 5210	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	40	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5210 – 5220	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5220 – 5230	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5230 – 5240	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminar, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	40	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5240 – 5250	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminar, moderately firm, silty in part, with glauconite inclusion, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5250 – 5260	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminar, moderately firm, silty in part, with glauconite inclusion, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
5260 – 5270	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, occasionally micropyrritic, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
5270 – 5280	80	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminal, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5280 – 5290	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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 glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5290 – 5300	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5300 – 5310	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite.	
5310 – 5320	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5320 – 5330	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, minor subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, locally grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), 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, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5330 – 5340	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), 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. (%)
		tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5340 – 5350	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublamellar, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, limestone.	
5350 – 5360	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublamellar, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5360 – 5370	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublamellar, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5370 – 5380	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5380 – 5390	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5390 – 5400	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with glauconite and dark minerals inclusions,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
5400 – 5410	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, dirty, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite.	
5410 – 5420	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, dirty, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5420 – 5430	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), dark greenish gray (5GY 4/1), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, dirty, with glauconite and dark minerals inclusions, microcarbonaceous in part, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5430 – 5440	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5440 – 5450	40	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	TR
	30	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity.	
	20	Fluorescence: NVOS, traces 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. POS.	
	10	SAND: white (N9), 70% fine, 30% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5450 – 5460	50	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SAND: white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5460 – 5470	50	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	30	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SAND: white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5470 – 5480	60	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SAND: white (N9), 50% fine, 40% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5480 – 5490	80	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut	15

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SAND: white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5490 – 5500	70	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SAND: white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5500 – 5510	70	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SAND: white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5510 – 5520	70	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SAND: white (N9), 60% fine, 30% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5520 – 5530	60 30 10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5530 – 5540	50 40 10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5540 – 5550	40 40 20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5550 – 5560	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5560 – 5570	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5570 – 5580	60	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	20	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% very fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
5580 – 5590	50 20 20 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. No Oil Show. SAND: white (N9), 70% fine, 20% very fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, amorphous in part, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite.	
5590 – 5600	70 20 10	SAND: white (N9), 80% medium, 20% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, traces 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. POS. Accessories: calcite, pyrite.	TR
5600 – 5610	60 20 20	SAND: white (N9), 80% medium, 20% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, pyrite.	
5610 – 5620	70	SAND: white (N9), 70% medium, 30% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	5
	20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. Accessories: calcite, pyrite.	
5620 – 5630	70	SAND: white (N9), 70% medium, 30% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	5
	20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. Accessories: calcite, pyrite.	
5630 – 5640	80	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	10
	10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		residual ring at natural light. POS. Accessories: calcite, pyrite.	
5640 – 5650	80 10 10	SAND: white (N9), 80% medium, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, microcarbonaceous in part, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS. Accessories: calcite, pyrite.	20
5650 – 5660	50 30 20	SAND: white (N9), 80% medium, 10% fine, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	10
5660 – 5670	90 10 Tr	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal.	20
5670 – 5680	90	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal.	
5680 – 5690	80 10 10	SAND: white (N9), 70% medium, 20% coarse, 10% fine quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments.	30
5690 – 5700	80 10 10	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments.	30
5700 – 5710	60 30	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments.	
5710 – 5720	50 40 10	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments, pyrite.	30
5720 – 5730	60 30 10	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments, pyrite.	20
5730 – 5740	60 30	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted.	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: shell fragments, pyrite.	
5740 – 5750	60	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS.	20
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. Accessories: pyrite.	
5750 – 5760	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	30	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	
	10	SAND: white (N9), 100% fine, traces medium to coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. Accessories: pyrite.	
5760 – 5770	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 100% fine, traces medium to coarse quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. Accessories: pyrite.	
5770 – 5780	90	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	firm, silty in part, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
5780 – 5790	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, locally pyritized, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. Accessories: pyrite, shell fragment.	
5790 – 5800	70	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, locally pyritized, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine quartz grain, grading to siltstone, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 100% fine quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted. Accessories: pyrite.	
5800 – 5810	40	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine quartz grain, grading to siltstone, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, dark lithics, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, shell fragments.	
5810 – 5820	60	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5820 – 5830	60	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5830 – 5840	50	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5840 – 5850	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5850 – 5860	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5860 – 5870	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, locally pyritized, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5870 – 5880	60	SANDSTONE: medium light gray (N6), occasionally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5880 – 5890	50	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), occasionally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5890 – 5900	80	SAND: white (N9), 70% medium, 30% fine, traces coarse quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS. Accessories: pyrite.	
5900 – 5910	60	SAND: white (N9), 80% medium, 20% fine, traces coarse quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	30
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% spotty 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. POS.	
	10	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5910 – 5920	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS.	20
	30	SAND: white (N9), 50% medium, 50% fine, traces coarse quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5920 – 5930	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% 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. POS.	20
	40	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5930 – 5940	50	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	30	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5940 – 5950	50	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	30	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, traces dark lithics, subangular to subrounded, well sorted. Accessories: pyrite.	
5950 – 5960	40	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	30	SAND: white (N9), 50% fine, 50% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
5960 – 5970	50	SANDSTONE: medium light gray (N6), locally light gray (N7), very	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 10	fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, shell fragments.	
5970 – 5980	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
5980 – 5990	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
5990 – 6000	70	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		No Oil Show. Accessories: pyrite.	
6000 – 6010	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6010 – 6020	50	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
6020 – 6030	50	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, shell fragments.	
6030 – 6040	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6040 – 6050	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
6050 – 6060	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6060 – 6070	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6070 – 6080	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	sandstone, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6080 – 6090	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6090 – 6100	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6100 – 6110	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6110 – 6120	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6120 – 6130	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6130 – 6140	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6140 – 6150	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6150 – 6160	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6160 – 6170	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6170 – 6180	70	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6180 – 6190	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. Accessories: pyrite.	
6190 – 6200	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6200 – 6210	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6210 – 6220	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6220 – 6230	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6230 – 6240	70	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6240 – 6250	70	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6250 – 6260	60	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6260 – 6270	80	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6270 – 6280	90 10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	5
6280 – 6290	90 10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	5
6290 – 6300	90 10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	5
6300 – 6310	60	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6310 – 6320	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6320 – 6330	60	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6330 – 6340	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6340 – 6350	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	(5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6350 – 6360	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, minor fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6360 – 6370	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, minor fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS.	10
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6370 – 6380	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	10
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS. Accessories: pyrite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6380 – 6390	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	10
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS. Accessories: pyrite, calcite.	
6390 – 6400	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6400 – 6410	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6410 – 6420	70	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, minor fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6420 – 6430	60	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, minor fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6430 – 6440	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6440 – 6450	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6450 – 6460	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6460 – 6470	80	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	
6470 – 6480	50	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	5
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. Accessories: pyrite.	
6480 – 6490	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. Accessories: pyrite.	
6490 – 6500	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6500 – 6510	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6510 – 6520	50	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6520 – 6530	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6530 – 6540	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6540 – 6550	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	30	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6550 – 6560	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6560 – 6570	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6570 – 6580	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6580 – 6590	50	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6590 – 6600	50	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6600 – 6610	80	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6610 – 6620	70	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6620 – 6630	40	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6630 – 6640	40	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6640 – 6650	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	sandstone, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6650 – 6660	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6660 – 6670	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6670 – 6680	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite.	
6680 – 6690	50	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite.	
6690 – 6700	40	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
6700 – 6710	40	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, shell fragments.	
6710 – 6720	40	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6720 – 6730	50 20 20 10	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6730 – 6740	50 20 20 10	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6740 – 6750	60 20 10	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6750 – 6760	50	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6760 – 6770	50	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6770 – 6780	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), locally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6780 – 6790	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, calcite.	
6790 – 6800	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6800 – 6810	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6810 – 6820	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SAND: white (N9), 90% fine, 10% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6820 – 6830	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6830 – 6840	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 90% fine, 10% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite.	
6840 – 6850	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6850 – 6860	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6860 – 6870	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6870 – 6880	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
6880 – 6890	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6890 – 6900	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6900 – 6910	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
6910 – 6920	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, dolomite, calcite, coal.	
6920 – 6930	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, dolomite, calcite, coal.	
6930 – 6940	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, dolomite, calcite, coal.	
6940 – 6950	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, dolomite, calcite.	
6950 – 6960	60 20 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, calcite.	
6960 – 6970	60 20 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, calcite.	
6970 – 6980	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	Tr	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, calcite.	
6980 – 6990	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 80% fine, 20% very fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite.	
6990 – 7000	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, 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, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7000 – 7010	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: pyrite, calcite.	
7010 – 7020	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7020 – 7030	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7030 – 7040	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7040 – 7050	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7050 – 7060	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		porosity. No Oil Show. Accessories: pyrite, calcite.	
7060 – 7070	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7070 – 7072	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7072 – 7080	100 TR	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7080 – 7090	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm to firm, silty in part, 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 consolidated, occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7090 – 7100	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm to firm, silty in part, 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 consolidated,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7100 – 7110	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm to firm, silty in part, 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 consolidated, occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7110 – 7120	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, locally subtabular, moderately firm to firm, silty in part, 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 consolidated, occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7120 – 7130	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, locally subtabular, moderately firm to firm, silty in part, 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 consolidated, occasionally pyritized, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7130 – 7140	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7140 – 7150	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7150 – 7160	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7160 – 7170	100 Tr	CLAYSTONE: medium dark gray (N4), minor dark gray (N3), olive black (5Y 2/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7170 – 7180	100	CLAYSTONE: medium dark gray (N4), minor dark gray (N3), olive black (5Y 2/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, dolomite, coal.	
7180 – 7190	100 Tr	CLAYSTONE: medium dark gray (N4), minor dark gray (N3), olive black (5Y 2/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7190 – 7200	100	CLAYSTONE: medium dark gray (N4), minor dark gray (N3), olive black (5Y 2/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, dolomite, coal.	
7200 – 7210	100 Tr	CLAYSTONE: medium dark gray (N4), minor dark gray (N3), olive black (5Y 2/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7210 – 7220	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7220 – 7230	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7230 – 7240	40 30 30	SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% medium, 40% fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, dolomite, coal.	
7240 – 7250	50 40 10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, dolomite, coal.	
7250 – 7260	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, dolomite, coal.	
7260 – 7270	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal.	
7270 – 7280	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal.	
7280 – 7290	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal.	
7290 – 7300	50	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7300 – 7310	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7310 – 7320	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, dolomite, coal.	
7320 – 7330	50	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), fine, locally medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7330 – 7340	50	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), fine, locally medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7340 – 7350	50 40 10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7350 – 7360	50 30 20	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally friable, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7360 – 7370	60 30 10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7370 – 7380	70 20 10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: pyrite, dolomite, coal, kaolinite.	
7380 – 7390	60	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal.	
7390 – 7400	60	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7400 – 7410	50	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7410 – 7420	50	SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7420 – 7430	40	SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	Show. CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7430 – 7440	40	SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7440 – 7450	50	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7450 – 7460	40	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), locally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show. Accessories: pyrite, dolomite, coal, kaolinite.	
7460 – 7470	40	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show. Accessories: pyrite, dolomite, coal, kaolinite.	
7470 – 7480	40 30 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show. Accessories: pyrite, dolomite, coal, kaolinite.	
7480 – 7490	40 30 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. No Oil Show. Accessories: pyrite, dolomite, coal, kaolinite.	
7490 – 7500	40 30 30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	10
7500 – 7510	40 30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7510 – 7520	40 30 30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOs, 5% 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	5
7520 – 7530	40 30 30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOs, 5% 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	5
7530 – 7540	40 30 30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOs, 5% 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, dolomite, coal, kaolinite.	
7540 – 7550	40	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS.	5
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7550 – 7560	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7560 – 7570	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, dolomite, coal, kaolinite.	
7570 – 7580	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	translucent, subangular to subrounded, well sorted. DOLOMITE: dark yellowish brown (10YR 4/2), massive, blocky to subblocky, moderately hard to hard, dolomicritic. Accessories: pyrite, coal.	
7580 – 7590	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), massive, blocky to subblocky, moderately hard to hard, dolomicritic. Accessories: pyrite, coal, kaolinite.	
7590 – 7600	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, dolomite.	
7600 – 7610	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, coal, dolomite.	
7610 – 7620	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, coal, dolomite.	
7620 – 7630	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite, dolomite.	
7630 – 7640	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite, dolomite.	
7640 – 7650	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite, dolomite.	
7650 – 7660	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite.	
7660 – 7670	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite, dolomite.	
7670 – 7680	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, coal, calcite, dolomite.	
7680 – 7690	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), minor light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, coal, calcite, dolomite.	
7690 – 7700	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), minor light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, coal, calcite, dolomite.	
7700 – 7710	40	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. FOS.	30
	30	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, calcite.	
7710 – 7720	50 30 20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, calcite.	30
7720 – 7730	40 30 30	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% 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. POS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, coal, calcite.	20
7730 – 7740	40 40 20	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, coal, calcite.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7740 – 7750	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite.	
7750 – 7760	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7760 – 7770	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7770 – 7780	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7780 – 7790	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
7790 – 7800	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite. NOTE: SAMPLE CONTAMINATED WITH 30% CHEMICAL.	
7800 – 7810	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 40% CHEMICAL.	
7810 – 7820	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal. NOTE: SAMPLE CONTAMINATED WITH 50% CHEMICAL.	
7820 – 7830	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal, dolomite. NOTE: SAMPLE CONTAMINATED WITH 40% CHEMICAL.	
7830 – 7840	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal, dolomite. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
7840 – 7850	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal, dolomite.	
7850 – 7860	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal, dolomite.	
7860 – 7870	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7870 – 7880	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite.	
7880 – 7890	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal.	
7890 – 7900	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal.	
7900 – 7910	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, dolomite, coal.	
7910 – 7920	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, dolomite, coal.	
7920 – 7930	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, dolomite, coal.	
7930 – 7940	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, dolomite, coal.	
7940 – 7950	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, dolomite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7950 – 7960	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, dolomite, coal.	
7960 – 7970	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, dolomite.	
7970 – 7980	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
7980 – 7990	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
7990 – 8000	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8000 – 8010	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8010 – 8020	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8020 – 8030	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8030 – 8040	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8040 – 8050	50	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, coal.	
8050 – 8060	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, coal.	
8060 – 8070	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal.	
8070 – 8080	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, coal.	
8080 – 8090	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: pyrite, calcite, coal.	
8090 – 8100	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal.	
8100 – 8110	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, coal.	
8110 – 8120	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, soft to moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal, dolomite.	
8120 – 8130	50 20 20 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable, locally with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, traces 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. POS. SAND: white (N9), 80% fine, 20 medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, soft to moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal, dolomite.	TR
8130 – 8140	70 20 10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, locally with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 80% fine, 20 medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, coal, dolomite.	5
8140 – 8146	70	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded,	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, locally with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% 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. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 80% fine, 20 medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, coal, dolomite.	
8146 – 8160	90 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
8160 – 8170	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
8170 – 8180	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
8180 – 8190	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
8190 – 8200	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
8200 – 8210	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 20% CHEMICAL.	
8210 – 8220	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
8220 – 8230	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 10% CHEMICAL.	
8230 – 8240	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8240 – 8250	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8250 – 8260	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, dolomite. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8260 – 8270	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8270 – 8280	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8280 – 8290	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty to sublaminae, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH CHEMICAL.	
8290 – 8300	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
8300 – 8310	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
8310 – 8320	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite.	
8320 – 8330	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, coal, <i>Foraminifera Ind.</i>	
8330 – 8340	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, coal, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
8340 – 8350	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally silty, occasionally glauconitic, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, coal, calcite, <i>Valvulineria sp.</i>	
8350 – 8360	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, locally glauconitic, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite.	
8360 – 8370	90 10	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, occasionally glauconitic, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite.	
8370 – 8380	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, occasionally glauconitic, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite.	
8380 – 8390	100 Tr	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal.	
8390 – 8400	90	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
8400 – 8410	90	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
8410 – 8420	90	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
8420 – 8430	70	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8430 – 8440	70	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8440 – 8450	60	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8450 – 8460	60	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, traces 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. POS.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8460 – 8470	60	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, slow, weak, faint, even, yellowish white cut	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8470 – 8480	60	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
8480 – 8490	50	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity.	
	20	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, very slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
8490 – 8500	40	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity.	
	30	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, very slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
8500 – 8510	60 20 20	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite, glauconite. Note: sample contaminated with walnut pill.	
8510 – 8520	60 20 20	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
8520 – 8530	60 20 20	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, very slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite, pyrite.	
8530 – 8540	80	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
8540 – 8550	80	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
8550 – 8560	70	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
8560 – 8570	80	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
8570 – 8580	80	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
8580 – 8590	90	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, very slightly microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
8590 – 8600	90	CLAYSTONE: dark gray (N3), minor medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, locally silty, micromicaceous, very slightly microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), minor medium gray (N5), earthy, blocky to amorphous, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
FINAL TOTAL DEPTH 8600.0 ft. MD(RT); 4936.56 ft. TVD(RT)			



WELL: LO6-28D

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
LOBITOS Mbr. (TALARA Fm.)							
1011	5	0	29	0	0	0	0
1012	121	0	29	0	0	0	0
1013	95	1	54	0	0	0	0
1014	84	1	54	0	0	0	0
1015	51	1	85	0	0	0	0
1016	71	1	85	0	0	0	0
1017	87	1	101	0	0	0	0
1018	104	1	101	0	0	0	0
1019	115	1	118	0	0	0	0
1020	113	1	123	0	0	0	0
1021	82	1	123	0	0	0	0
1022	93	0	49	0	0	0	0
1023	88	0	49	0	0	0	0
1024	127	1	81	0	0	0	0
1025	107	1	97	0	0	0	0
1026	101	1	97	0	0	0	0
1027	119	1	110	0	0	0	0
1028	129	1	110	0	0	0	0
1029	131	1	110	0	0	0	0
1030	154	1	131	0	0	0	0
1031	158	1	131	0	0	0	0
1032	134	2	172	0	0	0	0
1033	189	2	172	0	0	0	0
1034	134	2	191	0	0	0	0
1035	153	2	191	0	0	0	0
1036	204	2	180	0	0	0	0
1037	168	2	180	0	0	0	0
1038	141	2	180	0	0	0	0
1039	147	2	180	0	0	0	0
1040	173	2	205	0	0	0	0
1041	162	2	218	0	0	0	0
1042	207	2	218	0	0	0	0
1043	197	2	218	0	0	0	0
1044	171	2	247	0	0	0	0
1045	158	2	247	0	0	0	0
1046	180	2	247	0	0	0	0
1047	224	3	256	0	0	0	0
1048	179	3	256	0	0	0	0
1049	145	1	95	0	0	0	0
1050	92	1	113	0	0	0	0
1051	114	1	142	0	0	0	0
1052	50	1	126	0	0	0	0
1053	105	1	126	0	0	0	0
1054	123	2	167	0	0	0	0
1055	129	2	167	0	0	0	0
1056	123	2	167	0	0	0	0
1057	146	2	187	0	0	0	0
1058	146	2	212	0	0	0	0
1059	131	2	212	0	0	0	0
1060	123	2	244	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1061	145	2	244	0	0	0	0
1062	165	2	244	0	0	0	0
1063	142	3	290	0	0	0	0
1064	167	3	290	0	0	0	0
1065	141	3	294	0	0	0	0
1066	153	3	298	0	0	0	0
1067	171	3	298	0	0	0	0
1068	167	3	290	0	0	0	0
1069	137	3	290	0	0	0	0
1070	131	3	349	0	0	0	0
1071	103	3	349	0	0	0	0
1072	105	3	331	0	0	0	0
1073	130	3	331	0	0	0	0
1074	174	3	336	0	0	0	0
1075	166	3	336	0	0	0	0
1076	163	4	364	0	0	0	0
1077	156	4	399	0	0	0	0
1078	139	1	139	0	0	0	0
1079	157	1	139	0	0	0	0
1080	123	1	143	0	0	0	0
1081	137	4	394	0	0	0	0
1082	70	4	394	0	0	0	0
1083	115	3	299	0	0	0	0
1084	109	4	415	0	0	0	0
1085	117	4	415	0	0	0	0
1086	100	4	408	0	0	0	0
1087	95	4	408	0	0	0	0
1088	100	4	419	0	0	0	0
1089	103	4	434	0	0	0	0
1090	88	4	434	0	0	0	0
1091	83	5	473	0	0	0	0
1092	75	4	423	0	0	0	0
1093	146	4	434	0	0	0	0
1094	199	4	434	0	0	0	0
1095	162	4	400	0	0	0	0
1096	171	4	395	0	0	0	0
1097	178	4	423	0	0	0	0
1098	152	4	423	0	0	0	0
1099	150	4	423	0	0	0	0
1100	166	5	485	0	0	0	0
1101	114	5	485	0	0	0	0
1102	118	5	480	0	0	0	0
1103	118	5	476	0	0	0	0
1104	99	5	479	0	0	0	0
1105	192	5	482	0	0	0	0
1106	159	5	482	0	0	0	0
1107	156	5	509	0	0	0	0
1108	188	5	509	0	0	0	0
1109	168	5	548	0	0	0	0
1110	160	3	325	0	0	0	0
1111	160	3	325	0	0	0	0
1112	152	4	399	0	0	0	0
1113	164	4	399	0	0	0	0
1114	158	4	399	0	0	0	0
1115	166	4	399	0	0	0	0
1116	163	4	397	0	0	0	0
1117	154	4	411	0	0	0	0
1118	162	4	411	0	0	0	0
1119	171	4	411	0	0	0	0
1120	209	5	452	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1121	178	5	452	0	0	0	0
1122	191	5	452	0	0	0	0
1123	174	5	454	0	0	0	0
1124	202	5	457	0	0	0	0
1125	199	5	457	0	0	0	0
1126	254	5	457	0	0	0	0
1127	162	5	490	0	0	0	0
1128	217	5	490	0	0	0	0
1129	178	5	490	0	0	0	0
1130	240	5	483	0	0	0	0
1131	240	5	476	0	0	0	0
1132	240	5	469	0	0	0	0
1133	178	5	469	0	0	0	0
1134	216	5	469	0	0	0	0
1135	186	5	476	0	0	0	0
1136	218	5	476	0	0	0	0
1137	202	5	476	0	0	0	0
1138	209	5	490	0	0	0	0
1139	210	5	490	0	0	0	0
1140	271	5	490	0	0	0	0
1141	212	5	498	0	0	0	0
1142	180	5	498	0	0	0	0
1143	166	5	498	0	0	0	0
1144	193	5	507	0	0	0	0
1145	229	5	507	0	0	0	0
1146	174	5	507	0	0	0	0
1147	179	6	578	0	0	0	0
1148	121	2	207	0	0	0	0
1149	158	2	226	0	0	0	0
1150	151	2	226	0	0	0	0
1151	123	3	253	0	0	0	0
1152	133	3	253	0	0	0	0
1153	134	3	288	0	0	0	0
1154	147	3	313	0	0	0	0
1155	118	3	313	0	0	0	0
1156	131	3	313	0	0	0	0
1157	190	4	405	0	0	0	0
1158	179	4	405	0	0	0	0
1159	181	4	385	0	0	0	0
1160	162	4	385	0	0	0	0
1161	109	4	369	0	0	0	0
1162	175	4	369	0	0	0	0
1163	132	4	402	0	0	0	0
1164	174	4	402	0	0	0	0
1165	142	4	408	0	0	0	0
1166	144	4	414	0	0	0	0
1167	132	4	414	0	0	0	0
1168	152	5	499	0	0	0	0
1169	152	5	462	0	0	0	0
1170	146	5	462	0	0	0	0
1171	133	4	410	0	0	0	0
1172	165	4	400	0	0	0	0
1173	137	4	420	0	0	0	0
1174	140	5	467	0	0	0	0
1175	152	5	450	0	0	0	0
1176	206	5	454	0	0	0	0
1177	100	4	362	0	0	0	0
1178	129	3	328	0	0	0	0
1179	146	4	411	0	0	0	0
1180	75	4	363	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1181	119	4	363	0	0	0	0
1182	123	4	391	0	0	0	0
1183	92	4	437	0	0	0	0
1184	114	3	347	0	0	0	0
1185	78	3	347	0	0	0	0
1186	171	4	395	0	0	0	0
1187	199	4	395	0	0	0	0
1188	252	4	428	0	0	0	0
1189	411	5	461	0	0	0	0
1190	447	5	461	0	0	0	0
1191	465	5	461	0	0	0	0
1192	417	5	461	0	0	0	0
1193	191	5	461	0	0	0	0
1194	508	5	542	0	0	0	0
1195	329	5	542	0	0	0	0
1196	288	5	542	0	0	0	0
1197	323	5	542	0	0	0	0
1198	313	5	546	0	0	0	0
1199	316	6	550	0	0	0	0
1200	317	6	550	0	0	0	0
1201	307	6	550	0	0	0	0
1202	294	6	550	0	0	0	0
1203	307	6	550	0	0	0	0
1204	264	5	519	0	0	0	0
1205	284	5	519	0	0	0	0
1206	312	5	519	0	0	0	0
1207	253	5	519	0	0	0	0
1208	219	5	531	0	0	0	0
1209	253	5	531	0	0	0	0
1210	139	5	493	0	0	0	0
1211	153	5	455	0	0	0	0
1212	149	5	455	0	0	0	0
1213	200	4	444	0	0	0	0
1214	226	4	444	0	0	0	0
1215	267	5	477	0	0	0	0
1216	195	5	477	0	0	0	0
1217	272	5	477	0	0	0	0
1218	297	5	477	0	0	0	0
1219	235	5	514	0	0	0	0
1220	275	5	514	0	0	0	0
1221	453	5	514	0	0	0	0
1222	295	5	531	0	0	0	0
1223	241	5	531	0	0	0	0
1224	235	5	531	0	0	0	0
1225	208	6	581	0	0	0	0
1226	180	6	581	0	0	0	0
1227	229	6	581	0	0	0	0
1228	255	6	581	0	0	0	0
1229	253	6	561	0	0	0	0
1230	222	6	561	0	0	0	0
1231	207	6	561	0	0	0	0
1232	273	6	637	0	0	0	0
1233	282	6	637	0	0	0	0
1234	239	6	637	0	0	0	0
1235	230	6	637	0	0	0	0
1236	313	7	693	0	0	0	0
1237	240	7	693	0	0	0	0
1238	229	7	693	0	0	0	0
1239	209	7	693	0	0	0	0
1240	243	7	684	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1241	162	7	676	0	0	0	0
1242	194	7	676	0	0	0	0
1243	195	7	697	0	0	0	0
1244	366	7	697	0	0	0	0
1245	301	7	711	0	0	0	0
1246	430	7	725	0	0	0	0
1247	273	7	725	0	0	0	0
1248	168	7	725	0	0	0	0
1249	272	7	725	0	0	0	0
1250	200	7	717	0	0	0	0
1251	201	7	717	0	0	0	0
1252	228	7	717	0	0	0	0
1253	288	8	802	0	0	0	0
1254	305	8	802	0	0	0	0
1255	281	8	802	0	0	0	0
1256	323	3	287	0	0	0	0
1257	100	3	287	0	0	0	0
1258	90	4	394	0	0	0	0
1259	107	6	563	0	0	0	0
1260	101	6	563	0	0	0	0
1261	118	6	563	0	0	0	0
1262	141	6	563	0	0	0	0
1263	117	6	556	0	0	0	0
1264	156	6	556	0	0	0	0
1265	155	4	373	0	0	0	0
1266	170	6	594	0	0	0	0
1267	150	6	594	0	0	0	0
1268	154	0	42	0	0	0	0
1269	118	4	428	0	0	0	0
1270	95	3	334	0	0	0	0
1271	157	4	403	0	0	0	0
1272	156	4	403	0	0	0	0
1273	187	4	403	0	0	0	0
1274	167	5	494	0	0	0	0
1275	258	6	623	0	0	0	0
1276	117	6	623	0	0	0	0
1277	66	6	621	0	0	0	0
1278	263	6	621	0	0	0	0
1279	288	6	621	0	0	0	0
1280	213	5	542	0	0	0	0
1281	242	5	542	0	0	0	0
1282	166	6	644	0	0	0	0
1283	183	6	644	0	0	0	0
1284	155	6	644	0	0	0	0
1285	305	8	754	0	0	0	0
1286	199	9	864	0	0	0	0
1287	247	9	864	0	0	0	0
1288	278	9	864	0	0	0	0
1289	253	12	1175	0	0	0	0
1290	295	15	1486	0	0	0	0
1291	271	15	1486	0	0	0	0
1292	293	15	1491	0	0	0	0
1293	265	15	1491	0	0	0	0
1294	231	15	1491	0	0	0	0
1295	231	15	1491	0	0	0	0
1296	191	13	1263	0	0	0	0
1297	204	13	1263	0	0	0	0
1298	264	13	1263	0	0	0	0
1299	205	13	1263	0	0	0	0
1300	230	9	932	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1301	235	9	932	0	0	0	0
1302	203	10	1002	0	0	0	0
1303	179	10	1002	0	0	0	0
1304	170	10	1002	0	0	0	0
1305	187	11	1052	0	0	0	0
1306	171	11	1052	0	0	0	0
1307	205	16	1554	0	0	0	0
1308	211	16	1554	0	0	0	0
1309	224	16	1554	0	0	0	0
1310	162	18	1839	0	0	0	0
1311	154	18	1839	0	0	0	0
1312	146	18	1839	0	0	0	0
1313	223	23	2338	0	0	0	0
1314	247	23	2338	0	0	0	0
1315	273	23	2338	0	0	0	0
1316	302	28	2805	0	0	0	0
1317	201	33	3272	0	0	0	0
1318	237	33	3272	0	0	0	0
1319	222	33	3272	0	0	0	0
1320	202	27	2732	0	0	0	0
1321	310	27	2732	0	0	0	0
1322	238	27	2732	0	0	0	0
1323	325	27	2653	0	0	0	0
1324	173	27	2653	0	0	0	0
1325	163	27	2653	0	0	0	0
1326	204	16	1647	0	0	0	0
1327	234	16	1647	0	0	0	0
1328	226	16	1647	0	0	0	0
1329	214	21	2094	0	0	0	0
1330	223	21	2094	0	0	0	0
1331	167	21	2094	0	0	0	0
1332	213	18	1759	12	8	0	0
1333	182	18	1759	12	8	0	0
1334	210	19	1847	12	8	0	0
1335	232	19	1847	12	8	0	0
1336	241	19	1847	11	7	0	0
1337	128	19	1847	10	7	0	0
1338	266	15	1460	10	7	0	0
1339	249	15	1460	10	7	0	0
1340	309	15	1460	10	7	0	0
1341	252	14	1361	9	7	0	0
1342	237	14	1361	9	6	0	0
1343	187	14	1361	9	6	0	0
1344	210	13	1280	9	6	0	0
1345	186	13	1280	9	6	0	0
1346	180	13	1280	9	6	0	0
1347	208	13	1224	8	6	0	0
1348	211	13	1224	8	6	0	0
1349	275	13	1224	8	5	0	0
1350	224	12	1166	8	5	0	0
1351	287	11	1109	8	5	0	0
1352	208	11	1109	8	6	0	0
1353	245	11	1109	8	6	0	0
1354	177	11	1096	8	6	0	0
1355	183	11	1096	8	5	0	0
1356	185	11	1036	8	5	0	0
1357	216	10	975	8	5	0	0
1358	156	10	975	8	6	0	0
1359	263	11	1042	9	6	0	0
1360	171	11	1042	9	6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1361	163	11	1042	9	6	0	0
1362	134	7	687	12	6	0	0
1363	85	4	362	8	3	0	0
1364	116	4	362	8	3	0	0
1365	105	4	348	8	3	0	0
1366	85	5	455	10	4	0	0
1367	107	5	455	10	4	0	0
1368	98	5	471	11	4	0	0
1369	110	5	471	11	4	0	0
1370	86	5	500	11	4	0	0
1371	118	6	555	12	4	0	0
1372	93	6	555	12	4	0	0
1373	86	6	533	12	4	0	0
1374	84	6	590	13	4	0	0
1375	106	7	675	14	6	0	0
1376	83	7	675	14	6	0	0
1377	105	7	675	14	6	0	0
1378	115	7	659	14	6	0	0
1379	101	8	730	16	6	0	0
1380	114	8	780	17	6	0	0
1381	110	8	780	17	6	0	0
1382	133	7	637	14	5	0	0
1383	112	7	692	15	6	0	0
1384	122	8	748	16	6	0	0
1385	108	6	598	13	5	0	0
1386	120	5	448	10	4	0	0
1387	102	5	467	11	4	0	0
1388	145	5	469	11	4	0	0
1389	93	6	555	13	4	0	0
1390	110	6	555	13	4	0	0
1391	115	5	496	11	4	0	0
1392	75	6	558	12	4	0	0
1393	244	6	558	12	4	0	0
1394	327	6	558	12	4	0	0
1395	288	7	654	12	4	0	0
1396	235	8	751	13	5	0	0
1397	235	8	751	13	5	0	0
1398	225	8	751	13	5	0	0
1399	254	8	751	13	5	0	0
1400	315	8	760	13	4	0	0
1401	430	8	770	13	4	0	0
1402	620	8	770	13	4	0	0
1403	357	8	770	13	4	0	0
1404	247	8	770	13	4	0	0
1405	125	3	296	5	2	0	0
1406	187	3	296	5	2	0	0
1407	324	4	418	7	2	0	0
1408	325	6	539	9	3	0	0
1409	257	6	539	9	3	0	0
1410	249	6	576	10	4	0	0
1411	280	6	612	11	4	0	0
1412	230	6	612	11	4	0	0
1413	262	6	612	11	4	0	0
1414	335	6	612	11	4	0	0
1415	316	6	612	11	4	0	0
1416	318	6	612	11	4	0	0
1417	387	6	612	11	4	0	0
1418	388	6	610	11	4	0	0
1419	452	6	607	11	4	0	0
1420	371	6	607	11	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1421	327	6	607	11	4	0	0
1422	319	6	607	11	4	0	0
1423	341	7	624	12	4	0	0
1424	372	7	642	12	3	0	0
1425	344	7	642	12	3	0	0
1426	324	7	642	12	3	0	0
1427	439	7	642	12	3	0	0
1428	363	7	642	12	3	0	0
1429	297	7	635	12	3	0	0
1430	427	7	635	12	4	0	0
1431	289	7	635	12	4	0	0
1432	383	7	619	12	4	0	0
1433	236	6	603	11	4	0	0
1434	307	6	603	11	4	0	0
1435	243	6	603	11	4	0	0
1436	211	6	603	11	4	0	0
1437	155	6	603	11	4	0	0
1438	482	6	594	11	3	0	0
1439	254	6	594	11	3	0	0
1440	274	7	672	13	4	0	0
1441	226	7	672	13	4	0	0
1442	236	7	672	13	4	0	0
1443	280	8	722	14	4	0	0
1444	294	8	773	14	4	0	0
1445	308	9	823	15	4	0	0
1446	326	9	823	15	4	0	0
1447	200	9	823	15	4	0	0
1448	449	9	823	15	4	0	0
1449	197	9	856	16	4	0	0
1450	518	9	889	16	5	0	0
1451	226	9	889	16	5	0	0
1452	345	9	890	16	5	0	0
1453	274	9	892	16	5	0	0
1454	271	9	892	16	4	0	0
1455	222	9	892	16	4	0	0
1456	276	9	890	12	5	0	0
1457	197	4	400	9	4	0	0
1458	95	4	369	8	2	0	0
1459	109	4	369	8	2	0	0
1460	107	5	439	9	2	0	0
1461	118	5	439	9	2	0	0
1462	114	4	406	8	2	0	0
1463	110	4	420	8	2	0	0
1464	114	4	420	8	2	0	0
1465	116	5	430	9	2	0	0
1466	116	5	455	10	2	0	0
1467	134	5	480	10	2	0	0
1468	116	5	443	9	2	0	0
1469	131	5	443	9	2	0	0
1470	109	5	468	9	2	0	0
1471	130	5	468	9	2	0	0
1472	116	5	486	10	2	0	0
1473	110	5	486	10	2	0	0
1474	111	6	538	8	2	0	0
1475	113	6	583	11	2	0	0
1476	114	7	630	12	3	0	0
1477	123	7	630	12	3	0	0
1478	114	7	630	12	3	0	0
1479	117	6	613	11	3	0	0
1480	129	6	613	11	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1481	125	6	551	10	3	0	0
1482	119	7	636	11	3	0	0
1483	128	7	636	11	3	0	0
1484	129	7	636	11	3	0	0
1485	127	7	636	11	3	0	0
1486	137	6	617	11	3	0	0
1487	129	8	732	14	3	0	0
1488	109	8	732	14	3	0	0
1489	113	8	732	14	3	0	0
1490	107	7	653	12	3	0	0
1491	120	7	653	12	3	0	0
1492	242	7	653	12	3	0	0
1493	266	7	653	12	3	0	0
1494	301	7	706	13	3	0	0
1495	308	7	706	13	3	0	0
1496	448	7	706	13	3	0	0
1497	388	7	706	13	3	0	0
1498	308	7	706	13	3	0	0
1499	333	7	699	13	3	0	0
1500	319	7	692	12	3	0	0
1501	307	7	692	12	3	0	0
1502	227	7	688	12	3	0	0
1503	261	7	688	12	3	0	0
1504	219	7	688	12	3	0	0
1505	195	7	688	12	3	0	0
1506	260	7	686	12	3	0	0
1507	270	7	684	12	3	0	0
1508	281	7	684	12	3	0	0
1509	241	7	653	12	3	0	0
1510	274	7	653	12	3	0	0
1511	239	7	653	12	3	0	0
1512	264	8	722	13	3	0	0
1513	199	8	722	13	3	0	0
1514	242	8	722	13	3	0	0
1515	258	8	722	13	3	0	0
1516	223	7	697	13	3	0	0
1517	259	7	697	13	3	0	0
1518	226	7	697	13	3	0	0
1519	242	7	697	13	3	0	0
1520	241	7	695	13	3	0	0
1521	230	7	693	13	3	0	0
1522	244	7	693	13	3	0	0
1523	258	9	859	16	3	0	0
1524	212	9	859	16	3	0	0
1525	231	9	859	16	3	0	0
1526	285	9	859	16	3	0	0
1527	229	8	765	14	3	0	0
1528	248	8	765	14	3	0	0
1529	239	9	819	15	4	0	0
1530	244	9	873	15	4	0	0
1531	253	9	873	15	4	0	0
1532	288	9	873	15	4	0	0
1533	232	9	873	15	4	0	0
1534	231	9	873	15	4	0	0
1535	213	8	783	13	3	0	0
1536	289	8	783	13	3	0	0
1537	259	8	783	13	3	0	0
1538	242	8	735	12	3	0	0
1539	252	8	735	12	3	0	0
1540	223	8	735	12	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1541	256	7	690	12	3	0	0
1542	271	7	690	12	3	0	0
1543	268	7	690	12	3	0	0
1544	256	7	690	12	3	0	0
1545	273	8	750	13	3	0	0
1546	245	8	809	13	3	0	0
1547	317	11	1027	16	4	0	0
1548	251	11	1027	16	4	0	0
1549	270	9	866	15	4	0	0
1550	228	9	866	15	4	0	0
1551	240	9	866	15	4	0	0
1552	225	1	74	2	0	0	0
1553	195	2	190	5	1	0	0
1554	192	3	305	7	2	0	0
1555	125	2	218	5	1	0	0
1556	108	2	218	5	1	0	0
1557	112	3	239	5	1	0	0
1558	141	3	239	5	1	0	0
1559	134	3	289	5	1	0	0
1560	133	3	289	5	1	0	0
1561	138	3	285	5	1	0	0
1562	118	3	285	5	2	0	0
1563	120	3	280	5	2	0	0
1564	129	3	297	5	2	0	0
1565	119	3	297	5	2	0	0
1566	138	4	346	6	2	0	0
1567	130	4	346	6	1	0	0
1568	141	4	346	6	2	0	0
1569	163	4	346	6	2	0	0
1570	139	4	365	7	2	0	0
1571	185	4	384	7	2	0	0
1572	132	4	384	7	2	0	0
1573	120	4	378	7	2	0	0
1574	133	4	378	7	2	0	0
1575	128	4	399	7	1	0	0
1576	100	4	419	7	2	0	0
1577	92	4	419	7	2	0	0
1578	110	4	419	7	2	0	0
1579	123	4	396	7	2	0	0
1580	116	5	436	7	2	0	0
1581	123	5	491	8	2	0	0
1582	120	5	491	8	1	0	0
1583	121	6	552	9	2	0	0
1584	114	6	552	9	2	0	0
1585	89	5	466	8	2	0	0
1586	139	5	466	8	2	0	0
1587	236	5	466	8	2	0	0
1588	214	5	510	9	2	0	0
1589	255	5	510	9	2	0	0
1590	306	5	510	9	2	0	0
1591	238	5	510	9	2	0	0
1592	272	6	529	10	2	0	0
1593	262	6	529	10	2	0	0
1594	314	6	529	10	2	0	0
1595	290	6	529	10	2	0	0
1596	338	6	529	10	2	0	0
1597	255	6	540	11	3	0	0
1598	224	6	551	11	3	0	0
1599	275	6	551	11	3	0	0
1600	246	6	551	11	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1601	309	6	574	12	3	0	0
1602	411	6	596	12	3	0	0
1603	406	6	596	12	3	0	0
1604	342	6	596	12	3	0	0
1605	352	6	596	12	3	0	0
1606	395	7	622	12	3	0	0
1607	496	7	649	13	3	0	0
1608	413	7	649	13	3	0	0
1609	497	7	649	13	3	0	0
1610	342	7	649	13	3	0	0
1611	294	7	649	13	3	0	0
1612	239	7	635	12	3	0	0
1613	284	7	635	12	3	0	0
1614	284	7	635	12	3	0	0
1615	310	7	635	12	3	0	0
1616	272	7	652	13	3	0	0
1617	336	7	670	14	3	0	0
1618	281	7	670	14	3	0	0
1619	234	7	670	14	3	0	0
1620	246	7	690	13	3	0	0
1621	184	7	690	13	3	0	0
1622	294	7	690	13	3	0	0
1623	253	7	690	13	3	0	0
1624	312	7	694	13	3	0	0
1625	369	7	697	13	3	0	0
1626	327	7	697	13	3	0	0
1627	359	7	697	13	3	0	0
1628	333	8	738	14	4	0	0
1629	317	8	780	15	4	0	0
1630	326	8	780	15	4	0	0
1631	225	8	780	15	4	0	0
1632	275	9	816	16	4	0	0
1633	302	9	851	17	4	0	0
1634	248	9	851	17	4	0	0
1635	257	9	851	17	4	0	0
1636	251	10	976	20	5	0	0
1637	302	12	1101	23	6	0	0
1638	287	12	1101	23	6	0	0
1639	256	12	1101	23	6	0	0
1640	268	9	818	18	4	0	0
1641	290	6	534	12	3	0	0
1642	304	6	534	12	3	0	0
1643	211	4	362	9	2	0	0
1644	203	4	362	9	2	0	0
1645	173	4	362	9	2	0	0
1646	246	3	323	8	2	0	0
1647	388	3	323	8	2	0	0
1648	216	3	323	8	2	0	0
1649	162	3	295	8	2	0	0
1650	159	1	113	3	0	0	0
1651	109	1	113	3	0	0	0
1652	145	5	422	11	3	0	0
1653	105	5	486	13	3	0	0
1654	123	5	486	13	3	0	0
1655	145	4	393	11	3	0	0
1656	141	4	393	11	3	0	0
1657	138	4	350	11	3	0	0
1658	136	4	350	11	3	0	0
1659	149	4	372	10	4	0	0
1660	131	4	372	10	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1661	145	5	485	10	4	0	0
1662	122	5	499	11	5	0	0
1663	141	7	647	10	4	0	0
1664	218	7	647	10	4	0	0
1665	233	7	703	11	4	0	0
1666	217	7	703	11	4	0	0
1667	246	7	703	11	4	0	0
1668	175	7	666	9	4	0	0
1669	170	7	666	9	4	0	0
1670	166	6	550	10	4	0	0
1671	210	6	550	10	4	0	0
1672	213	6	550	10	4	0	0
1673	235	6	550	10	4	0	0
1674	198	5	498	10	4	0	0
1675	198	5	498	10	4	0	0
1676	243	5	498	10	4	0	0
1677	238	6	520	9	4	0	0
1678	216	6	520	9	4	0	0
1679	233	6	520	9	4	0	0
1680	248	5	468	10	4	0	0
1681	255	5	468	10	4	0	0
1682	219	5	468	10	4	0	0
1683	228	5	446	10	4	0	0
1684	234	5	423	10	4	0	0
1685	193	5	423	10	4	0	0
1686	210	5	423	10	4	0	0
1687	241	4	385	10	4	0	0
1688	237	4	385	10	4	0	0
1689	202	4	385	10	4	0	0
1690	223	4	366	9	4	0	0
1691	266	4	366	9	4	0	0
1692	217	4	366	9	4	0	0
1693	244	5	453	9	5	0	0
1694	241	5	453	9	5	0	0
1695	181	5	453	9	5	0	0
1696	212	5	454	9	5	0	0
1697	217	5	454	9	4	0	0
1698	113	5	491	9	4	0	0
1699	68	9	837	16	7	0	0
1700	94	23	2219	35	15	0	0
1701	102	23	2219	35	15	0	0
1702	112	113	10829	150	64	0	0
1703	143	113	10829	150	64	0	0
1704	165	113	10829	150	64	0	0
1705	210	189	18163	206	117	0	0
1706	251	189	18163	206	117	0	0
1707	220	189	18163	206	117	0	0
1708	282	189	18163	206	117	0	0
1709	251	202	19381	221	125	0	0
1710	262	215	20599	235	133	0	0
1711	266	215	20599	235	133	0	0
1712	212	215	20599	235	133	0	0
1713	238	213	20441	234	132	0	0
1714	255	211	20283	232	130	0	0
1715	260	211	20283	232	130	0	0
1716	316	211	20283	232	130	0	0
1717	261	203	19445	223	126	0	0
1718	263	194	18606	214	121	0	0
1719	260	263	25023	293	167	46	0
1720	265	332	31440	371	213	92	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1721	252	332	31440	371	213	92	0
1722	222	332	31440	371	213	92	0
1723	314	332	31440	371	213	92	0
1724	293	388	36715	438	253	110	0
1725	246	444	41989	505	292	127	0
1726	225	444	41989	505	292	127	0
1727	271	444	41989	505	292	127	0
1728	221	444	41989	505	292	127	0
1729	275	348	32852	394	227	99	19
1730	374	252	23714	282	161	71	38
1731	300	252	23714	282	161	71	38
1732	329	192	18078	215	122	54	28
1733	299	132	12441	148	83	37	19
1734	257	132	12441	148	83	37	19
1735	208	132	12441	148	83	37	19
1736	220	125	11840	144	79	35	0
1737	270	126	11920	142	77	34	0
1738	268	125	11850	141	75	33	0
1739	211	115	10850	139	74	31	0
1740	230	103	9832	100	62	28	0
1741	157	77	7238	90	51	23	12
1742	180	140	13138	161	92	41	22
1743	181	10	952	16	8	4	2
1744	70	7	616	10	6	3	0
1745	105	7	616	10	6	3	0
1746	110	7	624	11	6	3	0
1747	109	7	624	11	6	3	0
1748	122	7	628	11	6	3	0
1749	107	7	628	11	6	3	0
1750	98	7	637	13	6	3	0
1751	85	7	637	13	6	3	2
1752	100	7	677	14	6	3	2
1753	98	7	677	14	6	3	0
1754	100	7	677	14	6	3	0
1755	102	7	664	14	5	2	0
1756	93	7	664	14	6	3	0
1757	94	8	722	16	6	3	0
1758	82	8	722	16	6	3	0
1759	93	8	722	16	6	3	0
1760	146	7	693	15	6	2	0
1761	154	8	742	16	6	2	1
1762	143	8	742	16	6	2	1
1763	93	8	742	17	7	3	1
1764	96	8	738	17	7	3	0
1765	108	9	826	20	7	4	0
1766	118	9	826	20	8	4	0
1767	139	9	826	20	8	4	0
1768	150	16	1511	25	10	4	1
1769	14	16	1511	25	10	4	1
1770	240	14	1290	23	8	3	0
1771	298	14	1290	23	8	3	0
1772	250	14	1290	23	8	3	1
1773	218	9	877	18	7	2	1
1774	151	9	877	18	7	2	1
1775	218	9	838	18	7	3	1
1776	247	9	798	18	7	3	0
1777	264	9	798	18	7	3	0
1778	286	9	798	18	7	3	0
1779	232	9	798	18	7	3	0
1780	245	8	749	17	7	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1781	262	8	699	16	7	2	0
1782	249	8	699	16	7	2	0
1783	267	8	706	17	7	2	0
1784	223	8	706	17	7	2	0
1785	245	8	706	17	7	2	0
1786	229	8	722	18	7	3	0
1787	227	8	722	18	6	3	0
1788	225	8	722	18	6	3	0
1789	200	8	731	19	6	3	0
1790	214	8	739	19	6	2	0
1791	243	8	739	19	6	2	0
1792	324	8	739	19	6	2	0
1793	293	8	739	19	6	3	1
1794	328	8	739	19	6	3	1
1795	279	8	723	19	6	3	1
1796	277	8	706	18	6	3	1
1797	225	8	708	18	7	3	1
1798	271	8	708	18	7	3	1
1799	279	8	708	17	7	2	1
1800	239	8	713	18	7	3	1
1801	330	8	718	19	7	3	1
1802	166	8	718	19	7	3	0
1803	240	8	718	19	7	3	0
1804	238	8	692	18	7	3	0
1805	261	7	666	17	7	2	0
1806	216	7	682	18	7	2	0
1807	172	8	699	18	7	2	1
1808	164	8	715	19	7	2	1
1809	248	8	715	19	7	2	1
1810	269	8	715	19	7	1	1
1811	196	8	715	19	7	2	1
1812	231	8	715	19	7	2	1
1813	200	7	671	17	6	2	0
1814	271	7	671	17	6	2	0
1815	275	9	809	21	7	2	0
1816	257	9	809	21	7	1	0
1817	229	9	809	21	7	1	0
1818	209	9	809	21	7	1	0
1819	252	9	809	21	7	2	0
1820	289	8	774	20	7	2	0
1821	264	8	739	19	6	2	0
1822	247	8	739	19	6	2	0
1823	257	8	768	20	6	2	0
1824	298	9	796	20	7	2	0
1825	260	9	796	20	7	2	0
1826	253	9	796	20	7	2	0
1827	224	8	772	20	7	2	0
1828	261	8	747	20	7	1	0
1829	291	8	747	20	7	1	0
1830	216	8	747	20	7	1	0
1831	328	8	723	19	6	1	0
1832	198	8	723	19	6	1	0
1833	212	7	673	17	6	1	2
1834	133	7	673	17	6	1	2
1835	243	7	673	17	6	1	2
1836	311	13	1193	32	11	4	1
1837	52	3	299	7	3	0	0
1838	114	4	330	8	3	0	0
1839	106	4	327	8	4	0	0
1840	110	4	327	8	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1841	109	4	337	8	3	0	0
1842	87	4	337	8	3	0	0
1843	92	4	354	9	4	0	0
1844	93	3	318	7	3	0	0
1845	95	3	318	7	3	0	0
1846	108	4	378	9	4	0	0
1847	100	4	373	9	3	0	0
1848	90	4	373	9	3	0	0
1849	78	4	401	9	4	0	0
1850	108	4	401	9	4	0	0
1851	91	5	448	9	5	0	0
1852	95	5	477	11	4	0	0
1853	102	5	477	11	4	0	0
1854	91	5	477	11	4	0	0
1855	106	5	469	11	4	0	0
1856	100	5	492	12	4	0	0
1857	118	6	516	13	5	0	0
1858	103	5	513	12	4	0	0
1859	119	5	513	12	4	0	0
1860	136	5	475	12	4	0	0
1861	123	5	475	12	4	0	0
1862	129	5	464	13	4	0	0
1863	110	5	464	12	4	0	0
1864	116	5	454	12	4	0	0
1865	112	5	500	14	5	0	0
1866	96	5	500	14	4	0	0
1867	108	5	481	14	4	0	0
1868	118	5	481	0	0	0	0
1869	136	5	481	0	0	0	0
1870	128	8	699	16	7	2	0
1871	171	8	699	16	7	2	0
1872	218	8	699	16	7	2	0
1873	237	8	706	17	7	2	0
1874	230	8	706	17	7	2	0
1875	239	8	706	17	7	2	0
1876	243	8	706	17	7	0	0
1877	266	8	722	18	6	0	0
1878	255	8	722	18	6	0	0
1879	246	8	730	18	6	0	0
1880	226	8	739	19	6	0	0
1881	245	8	739	19	6	0	0
1882	249	8	739	19	6	0	0
1883	281	8	739	19	6	0	0
1884	284	8	739	19	6	0	0
1885	282	8	722	18	6	0	0
1886	272	8	706	18	6	0	0
1887	242	8	706	18	6	0	0
1888	269	8	707	18	6	0	0
1889	299	8	708	17	7	0	0
1890	271	8	708	17	7	0	0
1891	309	8	708	17	7	0	0
1892	367	8	718	19	7	0	0
1893	284	8	718	19	7	0	0
1894	297	7	692	18	7	0	0
1895	293	7	666	17	7	0	0
1896	306	7	666	17	7	0	0
1897	302	7	666	17	7	0	0
1898	289	7	666	17	7	0	0
1899	270	8	699	16	7	0	0
1900	238	8	699	16	7	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1901	223	8	706	17	7	0	0
1902	152	8	706	17	7	0	0
1903	226	8	706	17	7	0	0
1904	287	8	706	17	7	0	0
1905	273	8	722	18	6	0	0
1906	331	8	722	18	6	0	0
1907	282	8	730	18	6	0	0
1908	275	8	739	19	6	0	0
1909	312	8	739	19	6	0	0
1910	256	8	739	19	6	0	0
1911	296	8	739	19	6	0	0
1912	308	8	739	19	6	0	0
1913	255	16	1475	37	7	0	0
1914	246	16	1475	37	7	0	0
1915	267	14	1349	36	0	0	0
1916	219	14	1349	36	0	0	0
1917	239	14	1349	36	0	0	0
1918	228	11	1082	28	2	0	0
1919	349	9	815	19	3	0	0
1920	324	9	815	19	3	0	0
1921	302	9	815	19	3	0	0
1922	315	9	815	19	3	0	0
1923	224	9	815	19	3	0	0
1924	341	9	811	15	4	0	0
1925	247	9	811	15	4	0	0
1926	265	11	1024	19	6	0	0
1927	166	13	1237	23	9	0	0
1928	221	13	1237	23	9	0	0
1929	208	7	703	14	6	0	0
1930	220	7	703	14	6	0	0
1931	114	5	430	9	4	0	0
1932	137	5	430	9	4	0	0
1933	100	5	430	9	4	0	0
1934	127	5	439	9	4	0	0
1935	111	5	447	10	4	0	0
1936	143	5	454	11	4	0	0
1937	110	5	454	11	0	0	0
1938	123	5	454	11	0	0	0
1939	120	5	443	11	0	0	0
1940	123	5	502	12	2	0	0
1941	144	6	555	13	4	0	0
1942	82	6	555	13	4	0	0
1943	120	6	555	13	4	0	0
1944	140	6	593	14	4	0	0
1945	16	6	593	14	3	0	0
1946	185	6	604	14	4	0	0
1947	138	6	604	14	4	0	0
1948	183	6	604	14	4	0	0
1949	271	6	604	14	4	0	0
1950	213	7	661	15	4	0	0
1951	246	7	661	15	4	0	0
1952	251	7	661	15	4	0	0
1953	257	7	661	15	4	0	0
1954	350	7	636	14	4	0	0
1955	338	7	636	14	4	0	0
1956	254	7	636	14	4	0	0
1957	290	7	644	15	4	0	0
1958	404	7	652	15	4	0	0
1959	321	7	652	15	4	0	0
1960	288	7	652	15	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1961	408	7	652	15	4	0	0
1962	273	7	679	15	4	0	0
1963	290	7	679	15	4	0	0
1964	259	7	679	15	4	0	0
1965	317	7	686	16	4	0	0
1966	338	7	692	16	4	0	0
1967	284	7	692	16	3	0	0
1968	283	7	692	16	3	0	0
1969	285	7	692	16	3	0	0
1970	238	8	728	16	4	0	0
1971	269	8	728	16	4	0	0
1972	321	8	728	16	4	0	0
1973	268	8	728	16	4	0	0
1974	302	8	725	16	4	0	0
1975	222	8	722	16	4	0	0
1976	286	8	722	16	4	0	0
1977	267	8	722	16	4	0	0
1978	310	8	722	16	4	0	0
1979	227	7	661	15	4	0	0
1980	289	7	680	15	4	0	0
1981	276	7	699	15	4	0	0
1982	291	7	699	15	3	0	0
1983	292	7	699	15	3	0	0
1984	268	7	699	15	3	0	0
1985	315	7	690	15	2	0	0
1986	320	7	680	15	0	0	0
1987	270	7	680	15	0	0	0
1988	307	7	700	16	0	0	0
1989	248	8	720	16	0	0	0
1990	256	8	720	16	0	0	0
1991	245	8	720	16	0	0	0
1992	239	8	720	16	0	0	0
1993	240	7	705	16	2	0	0
1994	273	7	690	15	3	0	0
1995	243	7	690	15	3	0	0
1996	319	7	690	15	3	0	0
1997	277	7	690	15	3	0	0
1998	317	7	655	14	3	0	0
1999	321	7	620	13	3	0	0
2000	291	7	620	13	3	0	0
2001	276	7	620	13	3	0	0
2002	312	6	536	12	3	0	0
2003	269	5	452	10	2	0	0
2004	304	20	1862	39	8	0	0
2005	259	20	1862	39	8	0	0
2006	231	20	1862	39	8	0	0
2007	169	20	1862	39	8	0	0
2008	183	11	1087	22	5	0	0
2009	236	11	1087	22	5	0	0
2010	355	11	1087	22	5	0	0
2011	349	11	1087	22	5	0	0
2012	388	11	1079	22	5	0	0
2013	224	11	1070	21	4	0	0
2014	243	11	1070	21	4	0	0
2015	276	10	992	20	4	0	0
2016	269	10	913	18	3	0	0
2017	300	10	913	18	3	0	0
2018	255	10	913	18	3	0	0
2019	294	12	1176	25	5	0	0
2020	261	15	1438	32	7	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2021	236	15	1438	32	7	0	0
2022	139	55	5180	120	30	0	0
2023	264	55	5180	120	30	0	0
2024	204	55	5180	120	30	0	0
2025	282	11	1013	19	8	0	0
2026	101	10	940	16	5	0	0
2027	104	10	940	16	5	0	0
2028	138	10	990	17	5	0	0
2029	152	10	990	17	5	0	0
2030	168	10	990	17	5	0	0
2031	132	12	1136	20	6	0	0
2032	152	8	782	13	4	0	0
2033	9	7	655	11	3	0	0
2034	217	7	655	11	3	0	0
2035	127	7	701	11	3	0	0
2036	241	7	701	11	3	0	0
2037	290	7	701	11	3	0	0
2038	273	8	739	11	3	0	0
2039	292	8	739	11	3	0	0
2040	276	8	739	11	3	0	0
2041	269	8	739	11	3	0	0
2042	245	10	930	15	4	0	0
2043	238	10	930	15	4	0	0
2044	257	10	930	15	4	0	0
2045	220	13	1207	20	5	0	0
2046	189	13	1207	20	5	0	0
2047	149	14	1369	22	6	0	0
2048	212	14	1369	22	6	0	0
2049	231	14	1369	22	6	0	0
2050	233	14	1369	22	6	0	0
2051	256	16	1510	25	7	0	0
2052	189	16	1510	25	7	0	0
2053	209	18	1745	28	7	0	0
2054	220	18	1745	28	7	0	0
2055	219	18	1745	28	7	0	0
2056	261	18	1745	28	7	0	0
2057	231	20	1943	32	8	0	0
2058	193	20	1943	32	8	0	0
2059	194	27	2556	42	11	0	0
2060	236	27	2556	42	11	0	0
2061	240	27	2556	42	11	0	0
2062	291	27	2556	42	11	0	0
2063	325	25	2399	51	9	0	0
2064	245	25	2399	51	9	0	0
2065	205	25	2399	51	9	0	0
2066	164	25	2399	51	9	0	0
2067	206	22	2110	44	8	0	0
2068	239	22	2110	44	8	0	0
2069	266	22	2110	44	8	0	0
2070	252	23	2229	45	9	0	0
2071	179	23	2229	45	9	0	0
2072	200	23	2229	45	9	0	0
2073	198	23	2206	42	10	0	0
2074	228	23	2206	42	10	0	0
2075	251	23	2206	42	10	0	0
2076	266	24	2296	41	10	0	0
2077	262	24	2296	41	10	0	0
2078	193	24	2296	41	10	0	0
2079	240	24	2296	41	10	0	0
2080	275	26	2513	44	11	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2081	220	26	2513	44	11	0	0
2082	234	28	2659	46	11	0	0
2083	231	28	2659	46	11	0	0
2084	255	28	2659	46	11	0	0
2085	290	28	2659	46	11	0	0
2086	201	49	4673	80	20	0	0
2087	206	49	4673	80	20	0	0
2088	134	45	4261	74	18	0	0
2089	173	45	4261	74	18	0	0
2090	225	45	4261	74	18	0	0
2091	220	56	5309	92	21	0	0
2092	186	56	5309	92	21	0	0
2093	253	56	5309	92	21	0	0
2094	182	68	6471	115	27	0	0
2095	267	68	6471	115	27	0	0
2096	209	68	6471	115	27	0	0
2097	238	68	6471	115	27	0	0
2098	214	78	7431	137	33	0	0
2099	206	78	7431	137	33	0	0
2100	232	78	7422	135	31	0	0
2101	201	78	7418	134	30	0	0
2102	190	67	6333	119	28	0	0
2103	294	67	6333	119	28	0	0
2104	262	67	6333	119	28	0	0
2105	261	64	6053	115	28	0	0
2106	228	64	6053	115	28	0	0
2107	228	64	6053	115	28	0	0
2108	232	64	6053	115	28	0	0
2109	265	25	2386	47	12	0	0
2110	243	25	2386	47	12	0	0
2111	216	56	5285	103	26	0	0
2112	207	56	5285	103	26	0	0
2113	204	56	5285	103	26	0	0
2114	284	56	5285	103	26	0	0
2115	214	61	5791	114	29	0	0
2116	287	61	5791	114	29	0	0
2117	227	61	5791	114	29	0	0
2118	256	61	5791	114	29	0	0
2119	174	61	5791	114	29	0	0
2120	174	61	5791	114	29	0	0
2121	180	84	7962	140	51	0	0
2122	191	72	6855	117	40	0	0
2123	223	72	6855	117	40	0	0
2124	232	25	2390	41	13	0	0
2125	181	25	2390	41	13	0	0
2126	185	25	2390	41	13	0	0
2127	184	9	891	16	5	0	0
2128	229	9	891	16	5	0	0
2129	181	10	908	16	5	0	0
2130	143	10	908	16	5	0	0
2131	172	10	908	16	5	0	0
2132	195	9	826	14	5	0	0
2133	206	9	826	14	5	0	0
2134	221	8	738	13	5	0	0
2135	169	8	738	13	5	0	0
2136	157	11	1035	18	6	0	0
2137	172	11	1035	18	6	0	0
2138	179	11	1035	18	6	0	0
2139	194	11	1073	19	6	0	0
2140	176	11	1073	19	6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2141	152	11	1073	19	6	0	0
2142	135	8	725	13	4	0	0
2143	159	8	725	13	4	0	0
2144	215	13	1241	23	8	0	0
2145	188	13	1241	23	8	0	0
2146	169	17	1623	29	10	0	0
2147	157	17	1623	29	10	0	0
2148	142	17	1623	29	10	0	0
2149	153	14	1345	25	9	0	0
2150	217	14	1345	25	9	0	0
2151	178	7	684	17	3	0	0
2152	171	7	684	17	3	0	0
2153	129	5	483	12	3	0	0
2154	192	5	483	12	3	0	0
2155	275	5	483	12	3	0	0
2156	185	4	338	9	2	0	0
2157	157	4	338	9	2	0	0
2158	148	4	351	9	3	0	0
2159	168	4	351	7	3	0	0
2160	175	4	366	8	3	0	0
2161	213	4	366	8	3	0	0
2162	192	4	366	8	3	0	0
2163	162	11	1080	20	8	0	0
2164	144	11	1080	20	8	0	0
2165	149	11	1080	20	8	0	0
2166	182	20	1916	32	13	0	0
2167	148	20	1916	32	13	0	0
2168	161	20	1916	32	13	0	0
2169	165	14	1280	22	9	0	0
2170	218	14	1280	22	9	0	0
2171	222	14	1280	22	9	0	0
2172	199	12	1098	18	8	0	0
2173	211	12	1098	18	8	0	0
2174	237	14	1303	22	9	0	0
2175	192	14	1303	22	9	0	0
2176	164	14	1303	22	9	0	0
2177	168	16	1532	24	11	0	0
2178	205	16	1532	24	11	0	0
2179	274	16	1532	24	11	0	0
2180	225	20	1867	29	12	0	0
2181	238	20	1867	29	12	0	0
2182	197	20	1867	29	12	0	0
2183	204	20	1867	29	12	0	0
2184	179	18	1710	27	12	0	0
2185	209	18	1710	27	12	0	0
2186	262	18	1710	27	12	0	0
2187	184	15	1398	23	10	0	0
2188	166	15	1398	23	10	0	0
2189	128	15	1398	23	10	0	0
2190	158	11	1013	17	8	0	0
2191	192	11	1013	17	8	0	0
2192	258	11	1013	17	8	0	0
2193	251	10	952	16	7	0	0
2194	217	10	952	16	7	0	0
2195	217	11	1013	17	8	0	0
2196	117	14	1280	22	9	0	0
2197	194	14	1280	22	9	0	0
2198	314	14	1280	22	9	0	0
2199	248	12	1098	18	8	0	0
2200	268	12	1098	18	8	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2201	291	14	1303	22	9	0	0
2202	244	14	1303	22	9	0	0
2203	244	14	1303	22	9	0	0
2204	244	16	1532	24	11	0	0
2205	185	16	1532	24	11	0	0
2206	141	16	1532	24	11	0	0
2207	149	20	1867	29	12	0	0
2208	171	20	1867	29	12	0	0
2209	206	20	1867	29	12	0	0
2210	158	20	1867	29	12	0	0
2211	169	18	1710	27	12	0	0
2212	170	18	1710	27	12	0	0
2213	169	18	1710	27	12	0	0
2214	192	15	1398	23	10	0	0
2215	207	15	1398	23	10	0	0
2216	245	15	1398	23	10	0	0
2217	284	15	1398	23	10	0	0
2218	155	3	273	5	3	0	0
2219	127	4	338	6	3	0	0
2220	75	4	338	6	3	0	0
2221	111	4	394	7	4	0	0
2222	125	4	394	7	4	0	0
2223	122	4	373	7	4	0	0
2224	141	4	373	7	4	0	0
2225	153	4	373	7	4	0	0
2226	142	4	397	7	4	0	0
2227	25	6	550	10	6	0	0
2228	140	6	550	10	6	0	0
2229	129	5	444	8	5	0	0
2230	111	7	684	17	3	0	0
2231	266	5	483	12	3	0	0
2232	247	5	483	12	3	0	0
2233	225	5	483	12	3	0	0
2234	225	4	338	9	2	0	0
2235	212	4	338	9	2	0	0
2236	275	4	351	9	3	0	0
2237	222	4	351	7	3	0	0
2238	262	4	366	8	3	0	0
2239	212	4	351	7	3	0	0
2240	266	4	366	8	3	0	0
2241	209	6	608	10	6	0	0
2242	185	6	608	10	6	0	0
2243	252	6	608	10	6	0	0
2244	245	8	730	12	8	0	0
2245	254	8	730	12	8	0	0
2246	228	8	730	12	8	0	0
2247	261	8	730	12	8	0	0
2248	316	7	674	11	8	0	0
2249	440	7	617	10	7	0	0
2250	244	7	617	10	7	0	0
2251	268	7	617	10	7	0	0
2252	237	9	860	15	11	0	0
2253	289	9	860	15	11	0	0
2254	290	9	860	15	11	0	0
2255	229	9	860	15	11	0	0
2256	230	9	853	16	11	0	0
2257	217	9	853	16	11	0	0
2258	227	9	853	16	11	0	0
2259	243	9	828	15	11	0	0
2260	276	9	828	15	11	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2261	233	9	828	15	11	0	0
2262	265	8	791	14	10	0	0
2263	265	8	791	14	10	0	0
2264	244	8	791	14	10	0	0
2265	265	8	791	14	10	0	0
2266	294	8	775	13	9	0	0
2267	234	8	775	13	9	0	0
2268	244	8	775	13	9	0	0
2269	293	8	775	13	9	0	0
2270	266	9	849	14	9	0	0
2271	269	9	849	14	9	0	0
2272	275	9	849	14	9	0	0
2273	401	9	849	14	9	0	0
2274	263	9	846	14	10	0	0
2275	297	9	846	14	10	0	0
2276	245	9	846	14	10	0	0
2277	305	9	846	14	10	0	0
2278	355	9	846	14	10	0	0
2279	272	9	813	14	9	0	0
2280	267	9	813	14	9	0	0
2281	272	9	813	14	9	0	0
2282	256	7	641	11	8	0	0
2283	253	7	641	11	8	0	0
2284	262	7	641	11	8	0	0
2285	326	7	658	12	8	0	0
2286	256	7	675	12	8	0	0
2287	238	7	675	12	8	0	0
2288	226	7	675	12	8	0	0
2289	288	7	646	11	7	0	0
2290	285	7	646	11	7	0	0
2291	283	7	646	11	7	0	0
2292	295	7	646	11	7	0	0
2293	332	7	646	11	7	0	0
2294	260	7	622	10	7	0	0
2295	274	7	622	10	7	0	0
2296	226	7	622	10	7	0	0
2297	334	7	649	15	6	0	0
2298	324	7	649	15	6	0	0
2299	491	6	585	14	5	0	0
2300	456	6	577	13	4	0	0
2301	282	6	591	14	5	0	0
2302	263	6	575	13	4	0	0
2303	256	5	483	12	3	0	0
2304	269	4	338	12	2	0	0
2305	256	4	338	12	2	0	0
2306	294	5	483	13	4	0	0
2307	212	6	573	13	7	0	0
2308	187	6	573	13	7	0	0
2309	113	7	632	14	8	0	0
2310	178	9	860	21	11	0	0
2311	199	5	430	10	6	0	0
2312	231	0	0	0	0	0	0
2313	148	0	0	0	0	0	0
2314	210	0	0	0	0	0	0
2315	137	0	8	0	0	0	0
2316	187	0	8	0	0	0	0
2317	140	0	8	0	0	0	0
2318	171	1	125	4	2	0	0
2319	116	1	125	4	2	0	0
2320	122	1	134	4	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2321	118	1	134	3	2	0	0
2322	129	1	134	3	2	0	0
2323	198	2	183	5	3	0	0
2324	150	8	733	18	11	0	0
2325	136	5	450	11	6	0	0
2326	200	2	218	6	3	0	0
2327	252	2	218	6	3	0	0
2328	261	2	218	6	3	0	0
2329	199	3	250	7	4	0	0
2330	198	3	250	7	4	0	0
2331	236	3	250	7	4	0	0
2332	241	2	202	6	3	0	0
2333	240	2	153	5	2	0	0
2334	274	3	260	7	3	0	0
TEREBRATULA Mbr. (TALARA Fm.)							
2335	199	3	260	7	3	0	0
2336	213	3	274	8	4	0	0
2337	164	6	535	14	8	0	0
2338	227	6	535	14	8	0	0
2339	242	6	535	14	8	0	0
2340	269	6	535	14	8	0	0
2341	253	7	675	17	10	0	0
2342	312	7	675	17	10	0	0
2343	168	7	675	17	10	0	0
2344	275	7	675	17	10	0	0
2345	147	2	179	5	3	0	0
2346	208	2	179	5	3	0	0
2347	240	2	202	6	4	0	0
2348	171	2	202	6	4	0	0
2349	191	3	292	8	6	0	0
2350	173	3	292	8	6	0	0
2351	231	3	292	8	6	0	0
2352	180	3	297	9	6	0	0
2353	194	3	297	9	5	0	0
2354	135	3	297	9	5	0	0
2355	241	3	252	7	5	0	0
2356	209	3	252	7	5	0	0
2357	299	3	252	7	5	0	0
2358	181	3	259	8	4	0	0
2359	294	3	266	8	4	0	0
2360	262	3	266	8	4	0	0
2361	214	4	369	10	6	0	0
2362	287	5	472	11	7	0	0
2363	271	5	472	11	7	0	0
2364	428	5	472	11	7	0	0
2365	298	22	2079	37	22	0	0
2366	290	22	2079	37	22	0	0
2367	212	22	2079	37	22	0	0
2368	342	22	2079	37	22	0	0
2369	317	46	4363	74	44	0	0
2370	302	71	6647	112	66	0	0
2371	384	71	6647	112	66	0	0
2372	298	71	6647	112	66	0	0
2373	270	101	9477	158	94	0	0
2374	127	131	12307	205	121	0	0
2375	210	131	12307	205	121	0	0
2376	226	180	16939	279	165	0	0
2377	237	180	16939	279	165	0	0
2378	229	180	16939	279	165	0	0
2379	173	267	25118	420	246	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2380	181	318	29894	496	296	0	0
2381	142	369	34670	573	347	0	0
2382	160	360	34030	532	300	0	0
2383	119	351	33389	491	252	0	0
2384	199	35	3285	49	23	0	0
2385	213	35	3285	49	23	0	0
2386	259	82	7795	113	66	0	0
2387	257	82	7795	113	66	0	0
2388	214	82	7795	113	66	0	0
2389	186	401	37701	658	369	0	0
2390	187	401	37701	658	369	0	0
2391	279	401	37701	658	369	0	0
2392	295	401	37701	658	369	0	0
2393	263	274	25815	444	247	0	0
2394	207	277	26064	444	247	0	0
2395	358	279	26314	444	247	0	0
2396	231	141	13254	224	125	0	0
2397	277	2	195	5	3	0	0
2398	221	3	281	6	4	0	0
2399	514	4	367	7	4	0	0
2400	175	4	367	7	4	0	0
2401	467	4	367	7	4	0	0
2402	217	329	30796	572	334	0	0
2403	196	329	30796	572	334	0	0
2404	204	97	9079	175	104	0	0
2405	206	97	9079	175	104	0	0
2406	366	97	9079	175	104	0	0
2407	239	13	1232	24	14	0	0
2408	1	10	955	21	13	0	0
2409	146	9	867	20	12	0	0
2410	119	9	799	20	13	0	0
2411	83	8	755	19	12	0	0
2412	113	7	631	14	13	0	0
2413	4	6	559	15	12	0	0
2414	31	7	585	13	13	0	0
2415	34	7	624	14	14	0	0
2416	49	22	2083	35	21	0	0
2417	113	22	2083	35	21	0	0
2418	84	14	1272	23	14	0	0
2419	104	14	1340	22	14	0	0
2420	118	14	1340	22	14	0	0
2421	131	14	1340	22	14	0	0
2422	45	44	4156	68	39	0	0
2423	52	156	14804	248	95	0	0
2424	60	281	26532	453	205	0	0
2425	57	341	32138	512	316	0	0
2426	141	341	32138	512	316	0	0
2427	55	11	1080	20	8	0	0
2428	222	11	1080	20	8	0	0
2429	295	11	1080	20	8	0	0
2430	184	20	1916	32	13	0	0
2431	208	20	1916	32	13	0	0
2432	260	20	1916	32	13	0	0
2433	322	14	1280	22	9	0	0
2434	258	14	1280	22	9	0	0
2435	230	14	1280	22	9	0	0
2436	263	12	1098	18	8	0	0
2437	230	12	1098	18	8	0	0
2438	253	14	1303	22	9	0	0
2439	344	14	1303	22	9	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2440	248	14	1303	22	9	0	0
2441	215	16	1532	24	11	0	0
2442	239	16	1532	24	11	0	0
2443	193	16	1532	24	11	0	0
2444	248	20	1867	29	12	0	0
2445	231	14	1303	22	9	0	0
2446	239	16	1532	24	11	0	0
2447	213	16	1532	24	11	0	0
2448	163	16	1532	24	11	0	0
2449	136	20	1867	29	12	0	0
2450	170	17	1611	32	14	0	0
2451	176	17	1611	32	15	0	0
2452	185	17	1611	32	17	0	0
2453	256	14	1235	31	18	0	0
2454	180	13	1144	30	17	0	0
2455	96	12	1085	30	17	0	0
2456	153	12	1088	29	16	0	0
2457	118	12	1088	24	16	0	0
2458	179	19	1780	39	26	0	0
2459	134	27	2472	54	36	0	0
2460	271	27	2472	54	36	0	0
2461	286	40	3691	78	52	0	0
2462	172	53	4910	101	68	0	0
2463	195	53	4910	101	68	0	0
2464	180	53	4910	101	68	0	0
2465	187	46	4236	88	59	0	0
2466	333	39	3561	74	49	0	0
2467	255	39	3561	74	49	0	0
2468	187	24	2240	48	29	0	0
2469	210	10	919	21	9	0	0
2470	261	10	919	21	9	0	0
2471	255	19	1794	39	16	0	0
2472	174	19	1794	39	16	0	0
2473	181	19	1794	39	17	0	0
2474	228	17	1544	35	17	0	0
2475	217	17	1544	35	17	0	0
2476	235	39	3564	81	48	0	0
2477	314	61	5584	127	79	0	0
2478	246	61	5584	127	79	0	0
2479	818	61	5584	127	79	0	0
2480	198	61	5584	127	79	0	0
2481	245	66	6014	139	101	0	0
2482	134	70	6311	151	113	0	0
2483	245	70	6311	151	113	0	0
2484	233	115	10393	252	191	0	0
2485	300	160	14474	352	269	0	0
2486	230	160	14474	352	269	0	0
2487	248	160	14474	352	269	0	0
2488	228	160	14474	352	269	0	0
2489	232	84	7595	186	142	0	0
2490	302	8	716	19	14	0	0
2491	206	8	716	19	14	0	0
2492	174	60	5408	132	102	0	0
2493	202	60	5408	132	102	0	0
2494	293	78	7045	173	134	0	0
2495	187	96	8682	213	165	0	0
2496	248	96	8682	213	165	0	0
2497	226	96	8682	213	165	0	0
2498	253	89	8056	201	156	0	0
2499	238	82	7429	188	146	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2500	248	92	8256	216	170	0	0
2501	232	108	9686	259	204	0	0
2502	235	3	306	8	6	0	0
2503	75	6	534	15	11	7	2
2504	89	8	652	18	13	8	1
2505	51	9	760	20	15	10	0
2506	122	10	868	23	17	11	0
2507	67	16	1368	35	27	17	0
2508	86	24	2092	35	44	27	6
2509	99	24	2092	35	44	27	6
2510	147	31	2655	70	47	35	10
2511	118	36	3074	79	63	41	11
2512	124	41	3427	91	73	48	13
2513	132	41	3427	91	73	48	13
2514	131	45	3740	104	86	58	15
2515	117	53	4331	123	104	69	17
2516	131	86	7066	208	174	117	27
2517	20	86	7066	208	174	117	27
2518	250	86	7066	208	174	117	27
2519	188	108	8782	266	229	151	35
2520	195	108	8782	266	229	151	35
2521	179	108	8782	266	229	151	35
2522	218	118	9552	296	258	170	41
2523	237	118	9552	296	258	170	41
2524	288	118	9552	296	258	170	41
2525	241	117	9458	296	258	172	42
2526	273	116	9363	295	259	173	43
2527	197	116	9363	295	259	173	43
2528	191	111	8880	281	248	166	41
2529	236	105	8396	267	236	160	39
2530	272	105	8396	267	236	160	39
2531	158	105	8396	267	236	160	39
2532	210	88	7046	224	201	136	32
2533	208	88	7046	224	201	136	32
2534	280	88	7046	224	201	136	32
2535	191	68	5419	174	154	106	26
2536	264	68	5419	174	154	106	26
2537	233	68	5419	174	154	106	26
2538	286	68	5419	174	154	106	26
2539	184	57	4552	145	129	88	21
2540	218	57	4552	145	129	88	21
2541	179	57	4552	145	129	88	21
2542	230	47	3767	120	107	72	18
2543	153	47	3767	120	107	72	18
2544	221	47	3767	120	107	72	18
2545	213	39	3128	101	87	60	16
2546	239	39	3128	101	87	60	16
2547	242	39	3128	101	87	60	16
2548	284	39	3128	101	87	60	16
2549	239	33	2659	86	73	50	11
2550	447	33	2659	86	73	50	11
2551	195	33	2659	86	73	50	11
2552	296	28	2255	72	61	40	10
2553	269	28	2255	72	61	40	10
2554	281	28	2255	72	61	40	10
2555	320	25	2075	66	56	36	6
2556	285	23	1895	61	50	33	1
2557	305	23	1895	61	50	33	1
2558	206	23	1895	61	50	33	1
2559	260	20	1657	53	43	29	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2560	222	20	1657	53	43	29	6
2561	295	20	1657	53	43	29	6
2562	255	20	1657	53	43	29	6
2563	207	15	1265	42	23	23	1
2564	213	15	1265	42	23	23	1
2565	219	15	1265	42	23	23	1
2566	177	15	1201	41	25	20	6
2567	194	15	1201	41	25	20	6
2568	208	15	1201	41	25	20	6
2569	269	13	1111	33	27	17	0
2570	228	13	1111	33	27	17	0
2571	223	13	1111	33	27	17	0
2572	224	12	1017	30	24	15	0
2573	282	12	1017	30	24	15	0
2574	278	12	1017	30	24	15	0
2575	223	12	1000	29	23	13	2
2576	188	12	1000	29	23	13	2
2577	215	12	1000	29	23	13	2
2578	288	12	1000	29	23	13	2
2579	225	11	962	27	21	13	0
2580	290	11	962	27	21	13	0
2581	282	11	962	27	21	13	0
2582	262	11	962	27	21	13	0
2583	178	11	974	27	22	12	1
2584	276	11	974	27	22	12	1
2585	212	11	974	27	22	12	1
2586	353	12	987	28	22	13	3
CHACRA Fm.							
2587	313	12	987	28	22	13	3
2588	269	12	987	28	22	13	3
2589	189	12	987	28	22	13	3
2590	225	12	1007	28	22	13	0
2591	272	12	1007	28	22	13	0
2592	293	12	1007	28	22	13	0
2593	138	12	1036	28	22	13	0
2594	321	12	1065	29	23	13	1
2595	389	12	1065	29	23	13	1
2596	296	12	1065	29	23	13	1
2597	166	11	900	30	22	4	2
2598	153	11	950	28	22	6	2
2599	153	11	950	27	23	6	2
2600	87	11	970	28	24	6	2
2601	117	10	850	29	25	9	2
2602	127	10	850	29	24	9	2
2603	81	10	850	28	24	8	2
2604	153	10	850	29	24	10	5
2605	165	11	950	29	25	10	5
2606	126	11	950	29	25	10	5
2607	95	11	900	28	25	8	3
2608	128	11	900	28	24	8	3
2609	158	12	975	27	25	8	3
2610	142	11	975	26	25	8	3
2611	128	11	985	26	24	5	3
2612	138	10	800	26	23	5	3
2613	130	10	850	25	21	11	5
2614	202	10	854	27	21	11	5
2615	306	10	857	27	21	12	5
2616	290	10	857	27	20	12	5
2617	273	10	798	26	20	12	5
2618	233	10	795	26	20	12	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2619	326	10	795	26	19	12	5
2620	268	10	850	26	21	8	4
2621	315	11	899	26	22	8	4
2622	307	11	899	25	22	8	4
2623	301	11	895	25	22	8	4
2624	336	10	875	27	23	8	3
2625	237	10	875	26	23	8	3
2626	318	12	985	28	23	8	3
2627	284	11	980	28	21	8	3
2628	308	11	974	28	21	8	3
2629	235	11	859	27	21	15	3
2630	272	11	859	27	21	15	3
2631	199	11	896	27	21	15	3
2632	270	11	895	27	22	15	6
2633	248	11	875	27	22	15	6
2634	274	10	827	27	22	15	6
2635	279	10	827	27	22	15	6
2636	292	11	840	28	22	15	6
2637	250	11	853	28	21	15	5
2638	250	11	853	28	21	15	5
2639	255	11	853	28	21	15	5
2640	200	10	848	28	21	15	4
2641	221	10	848	28	21	15	4
2642	189	10	848	28	21	15	4
2643	228	11	870	28	21	14	6
2644	230	11	870	28	21	14	6
2645	257	11	870	28	21	14	6
2646	241	11	870	28	21	14	6
2647	241	11	892	29	23	15	0
2648	210	11	892	29	23	15	0
2649	282	11	892	29	23	15	0
2650	280	11	876	30	22	14	1
2651	302	11	860	30	22	14	2
2652	302	11	890	31	24	15	4
2653	301	11	920	32	25	16	5
2654	214	11	920	32	25	16	5
2655	195	11	920	32	25	16	5
2656	276	12	964	33	26	16	5
2657	248	12	1008	34	27	16	5
2658	219	12	1008	34	27	16	4
2659	233	12	1008	34	27	16	4
2660	295	12	1008	34	27	16	4
2661	267	11	910	31	23	16	6
2662	262	11	910	31	23	16	6
2663	382	11	910	31	23	16	6
2664	264	11	910	31	23	16	6
2665	256	11	910	31	23	16	6
2666	227	11	892	29	22	15	6
2667	305	11	874	27	21	14	6
2668	158	11	874	27	20	13	2
2669	129	11	936	28	21	14	2
2670	186	12	999	29	22	15	2
2671	365	12	999	29	22	15	2
2672	242	12	999	29	22	15	3
2673	230	12	1058	24	17	12	5
2674	176	11	900	25	19	11	4
2675	119	11	945	25	19	11	4
2676	224	11	955	25	19	12	4
2677	249	11	965	25	20	12	4
2678	211	11	975	24	20	10	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2679	364	12	985	24	20	10	4
2680	255	12	995	25	20	10	4
2681	274	12	989	25	19	10	4
2682	260	12	1000	26	20	10	4
2683	151	12	1019	26	21	13	2
2684	233	12	1019	26	21	13	2
2685	149	12	1019	26	21	13	2
2686	274	12	1019	26	21	13	2
2687	388	15	1243	33	26	15	6
2688	73	17	1413	39	31	18	3
2689	267	17	1413	39	31	18	3
2690	20	31	2581	77	63	34	9
2691	140	29	2400	75	60	32	9
2692	86	12	1000	25	19	12	4
2693	69	12	1010	25	20	12	4
2694	71	12	1020	26	20	11	4
2695	205	12	980	25	20	11	4
2696	144	10	850	24	20	12	4
2697	190	10	850	24	19	12	4
2698	132	10	840	25	20	12	3
2699	113	10	800	25	20	12	3
2700	116	10	785	25	19	11	3
2701	251	9	780	20	17	11	2
2702	189	8	750	19	5	3	2
2703	143	6	600	6	4	3	2
2704	146	2	190	6	4	3	1
2705	174	2	204	6	4	2	1
2706	258	3	218	6	5	3	1
2707	183	3	218	6	5	3	1
2708	203	3	268	7	6	4	2
2709	134	3	268	7	6	4	2
2710	238	3	268	7	6	4	2
2711	224	4	314	8	6	4	1
2712	267	4	314	8	6	4	1
2713	198	4	314	9	7	4	1
2714	111	4	364	9	7	4	1
2715	170	4	364	9	7	4	1
2716	113	5	391	9	7	4	2
2717	191	5	391	9	7	4	2
2718	157	5	417	10	8	5	0
2719	142	5	417	10	8	5	0
2720	149	5	426	10	8	4	2
2721	141	5	426	10	8	4	2
2722	114	5	439	10	8	5	0
2723	126	5	439	10	8	5	0
2724	114	5	456	10	8	5	0
2725	137	5	477	11	8	5	1
2726	69	6	518	13	10	6	1
2727	111	6	518	13	10	6	1
2728	143	6	518	13	10	6	1
2729	151	9	708	23	21	15	2
2730	145	9	708	23	21	15	2
2731	148	19	1330	55	59	44	13
2732	181	19	1330	55	59	44	13
2733	184	38	2596	125	134	101	30
2734	201	38	2596	125	134	101	30
2735	218	38	2596	125	134	101	30
2736	209	58	3919	204	208	155	47
2737	212	58	3919	204	208	155	47
2738	154	58	3919	204	208	155	47

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2739	156	56	3809	202	137	178	52
2740	224	56	3809	202	137	178	52
2741	181	54	3623	204	156	156	47
2742	173	54	3623	204	156	156	47
2743	162	54	3623	204	156	156	47
2744	170	43	2927	139	153	116	33
2745	175	43	2927	139	153	116	33
2746	179	33	2317	107	114	86	26
2747	166	33	2317	107	114	86	26
2748	152	33	2317	107	114	86	26
2749	116	28	1960	84	91	68	18
2750	121	25	1801	74	79	58	13
2751	158	25	1801	74	79	58	13
2752	174	25	1801	74	79	58	13
2753	152	20	1484	60	61	45	12
2754	113	20	1484	60	61	45	12
2755	126	17	1283	49	51	37	10
2756	149	17	1283	49	51	37	10
2757	136	16	1197	44	45	33	9
2758	218	16	1197	44	45	33	9
2759	137	15	1150	41	41	30	9
2760	166	15	1150	41	41	30	9
2761	113	15	1150	41	41	30	9
2762	153	14	1095	37	38	27	8
2763	117	14	1072	36	37	26	9
2764	159	14	1072	36	37	26	9
2765	140	14	1044	35	35	25	8
2766	189	14	1044	35	35	25	8
2767	139	13	1040	34	35	25	6
2768	137	13	1040	34	35	25	6
2769	162	13	998	32	32	23	6
2770	137	13	998	32	32	23	6
2771	157	13	998	32	32	23	6
2772	106	12	930	30	29	21	6
2773	136	12	930	30	29	21	6
2774	113	11	882	28	27	20	2
2775	75	9	700	23	15	17	1
2776	17	9	700	23	15	17	1
2777	48	8	667	22	14	16	1
2778	53	8	623	21	18	14	1
2779	53	8	623	21	18	14	1
2780	12	8	621	21	19	13	2
2781	134	8	637	22	20	15	3
2782	153	8	570	20	18	19	2
2783	129	17	1276	47	38	35	12
2784	157	4	255	11	12	11	5
2785	148	5	367	14	17	16	5
2786	144	5	367	14	17	16	2
2787	203	5	367	14	17	16	2
2788	230	7	499	19	21	20	9
2789	220	7	499	19	21	20	9
2790	194	8	557	20	22	21	9
2791	115	8	557	20	22	21	8
2792	127	8	594	22	23	21	1
2793	139	8	594	22	23	21	1
2794	181	8	594	22	23	21	1
2795	97	7	526	19	21	19	0
2796	106	7	526	19	21	19	0
2797	72	8	538	21	16	22	10
2798	106	8	538	21	16	22	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2799	124	6	442	18	15	18	8
2800	109	6	442	18	15	18	8
2801	83	4	243	10	11	12	7
2802	99	3	204	8	8	9	0
2803	95	2	152	6	7	7	0
2804	85	2	152	6	7	7	1
2805	129	2	138	6	7	7	1
2806	106	8	563	22	21	19	6
2807	165	9	633	24	23	23	9
2808	96	9	633	24	23	23	9
2809	119	9	633	24	23	23	9
2810	78	8	559	22	21	21	9
2811	90	8	527	20	20	20	9
2812	91	7	508	19	20	19	8
2813	94	7	508	19	20	19	8
2814	75	7	494	19	19	18	7
2815	98	7	494	19	19	18	7
2816	110	7	494	19	19	18	7
2817	161	7	513	19	19	19	0
2818	184	7	513	19	19	19	0
2819	169	7	513	19	19	19	2
2820	72	7	500	19	18	18	2
2821	84	6	478	19	17	18	2
2822	68	6	461	19	17	18	1
2823	87	6	451	18	16	16	1
2824	85	6	451	18	17	16	7
2825	112	6	445	16	17	15	7
2826	112	6	433	16	15	15	7
2827	77	6	433	16	15	15	7
2828	80	6	416	15	15	15	7
2829	145	6	416	15	15	15	7
2830	169	6	416	15	15	15	7
2831	196	5	400	15	14	14	2
2832	230	5	400	15	14	14	4
2833	288	5	377	14	13	14	0
2834	57	5	377	14	13	14	0
2835	126	5	369	14	13	13	0
2836	92	5	382	14	13	14	2
2837	125	5	382	14	13	14	2
2838	127	5	386	14	14	14	4
2839	143	6	404	14	14	14	8
2840	126	6	404	14	14	14	8
2841	74	5	398	14	14	14	4
2842	98	5	392	14	14	14	0
2843	136	5	410	15	14	14	0
2844	157	5	410	15	14	13	0
2845	129	5	392	14	13	13	6
2846	133	6	398	14	14	14	6
2847	62	6	399	14	14	14	6
2848	60	6	417	15	14	15	8
2849	102	6	441	15	15	16	8
2850	97	6	441	15	15	16	0
2851	91	6	443	16	15	16	7
2852	110	6	443	17	15	16	7
2853	81	6	427	17	15	15	7
2854	97	3	247	11	9	9	0
2855	94	3	247	11	9	10	2
2856	103	3	242	10	9	10	2
2857	93	3	242	10	9	10	2
2858	91	3	229	9	9	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2859	127	3	223	8	9	9	0
2860	104	3	223	8	9	9	3
2861	138	3	206	7	8	9	3
2862	109	3	192	7	8	9	4
2863	129	3	178	6	7	8	5
2864	117	3	218	7	8	9	0
2865	144	3	218	7	8	9	0
2866	144	6	447	14	15	14	1
2867	144	6	447	14	15	14	1
2868	104	6	447	14	15	15	6
2869	55	6	439	14	15	14	0
2870	77	6	443	14	15	14	3
2871	134	6	443	14	15	14	3
2872	141	6	443	14	15	14	3
2873	174	6	469	15	15	15	1
2874	66	6	444	14	15	14	5
2875	77	5	369	12	12	12	4
2876	94	6	436	15	14	14	0
2877	90	6	504	6	17	14	3
2878	62	6	504	6	17	14	3
2879	58	7	497	18	19	18	8
2880	68	6	484	18	18	18	0
2881	61	7	515	19	18	19	9
2882	111	7	515	19	18	19	9
2883	119	7	502	18	17	18	8
2884	115	7	502	18	17	18	8
2885	101	8	621	22	22	20	0
2886	25	9	659	22	22	20	10
2887	76	9	659	22	22	20	10
2888	2	8	600	14	20	16	8
2889	7	5	433	9	12	10	4
2890	41	5	375	9	10	8	2
2891	50	5	440	11	12	10	0
2892	43	9	659	22	22	20	10
2893	87	8	600	14	20	16	8
2894	102	5	433	9	12	10	4
2895	59	5	375	9	10	8	2
2896	76	9	659	22	22	20	10
2897	76	8	600	14	20	16	8
2898	63	10	820	17	21	18	7
2899	95	10	793	20	21	17	10
2900	90	10	795	21	16	18	6
2901	80	8	617	12	17	15	2
2902	103	8	617	12	17	15	2
2903	89	8	627	17	15	14	1
2904	109	8	621	17	17	14	7
2905	74	8	598	16	17	14	5
2906	80	8	626	17	17	14	6
2907	90	12	963	27	26	22	8
2908	71	11	883	25	25	20	1
2909	55	10	794	23	23	18	7
2910	73	9	707	21	21	17	6
2911	53	8	626	18	18	14	6
2912	89	7	560	10	17	12	0
2913	47	7	560	10	17	12	0
2914	85	6	480	14	13	10	2
2915	81	6	480	14	13	10	2
2916	71	6	460	13	12	9	5
2917	98	5	436	13	12	10	2
2918	80	5	421	12	12	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2919	75	5	421	12	12	9	0
2920	54	5	403	11	10	8	1
2921	54	5	407	11	10	8	0
2922	55	5	393	10	10	8	0
2923	65	5	404	10	10	8	0
2924	45	5	418	10	10	8	0
2925	79	5	418	10	10	8	0
2926	62	5	440	11	10	8	1
2927	63	6	519	13	13	10	4
2928	61	6	519	13	13	10	4
2929	72	6	534	13	13	11	0
2930	66	7	569	14	14	11	4
2931	62	8	625	16	14	12	1
2932	76	8	649	16	14	12	2
2933	61	7	620	16	14	10	0
2934	29	7	604	15	15	12	3
2935	38	6	524	11	14	11	0
2936	61	7	534	14	15	12	4
2937	38	6	502	13	14	11	4
2938	36	7	523	14	15	12	4
2939	57	6	505	13	14	12	1
2940	65	6	498	13	14	13	6
2941	68	6	482	13	13	11	2
2942	54	6	487	10	13	11	2
2943	50	6	513	13	14	11	2
2944	70	6	481	12	13	10	3
2945	75	6	481	12	13	10	5
2946	55	7	533	13	14	11	2
2947	59	7	565	15	14	11	0
2948	76	7	548	16	12	11	4
2949	90	7	555	12	15	11	2
2950	92	7	548	13	15	10	0
2951	77	6	479	12	13	10	0
2952	95	6	479	12	13	10	0
2953	89	6	448	11	12	9	2
2954	44	5	434	10	12	10	1
2955	42	5	439	11	12	9	0
2956	47	5	394	9	11	9	3
2957	64	5	389	8	10	8	1
2958	49	5	446	11	12	9	0
2959	57	5	446	11	12	9	0
2960	59	5	435	3	3	1	0
2961	118	5	388	10	10	7	3
2962	162	5	388	10	10	7	3
2963	121	5	443	11	11	8	2
2964	121	5	445	6	6	4	1
2965	118	5	443	11	11	8	2
2966	98	5	455	6	6	4	1
2967	115	7	624	16	15	10	0
2968	132	7	624	16	15	10	0
2969	169	7	624	16	15	10	0
2970	102	8	635	22	18	9	3
2971	71	6	500	15	14	11	5
2972	147	6	485	14	13	11	2
2973	130	6	485	14	13	11	2
2974	100	7	569	17	15	12	0
2975	90	8	612	19	15	12	2
2976	142	8	612	19	15	12	2
2977	176	8	612	19	15	12	2
2978	144	7	603	18	14	9	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2979	119	7	537	17	13	9	2
2980	100	7	537	17	13	9	2
2981	116	6	483	13	12	8	0
2982	140	6	483	13	12	8	0
2983	159	5	438	13	10	8	2
2984	167	5	438	13	10	8	2
2985	127	5	438	13	10	8	2
2986	129	6	465	12	11	7	3
2987	164	6	465	12	11	7	3
2988	161	6	518	14	12	9	1
2989	84	7	558	14	12	9	2
2990	149	7	558	14	12	8	2
2991	139	7	620	16	13	9	4
2992	149	7	620	16	13	9	4
2993	157	7	620	16	13	9	4
2994	157	8	671	16	14	10	4
2995	141	8	671	16	14	10	3
2996	141	9	732	17	15	11	3
2997	128	9	732	17	15	11	3
2998	131	9	766	17	16	10	4
2999	146	9	766	17	16	10	4
3000	160	10	812	18	16	11	4
3001	164	9	812	18	16	11	0
3002	162	10	839	19	17	11	2
3003	140	10	839	19	17	11	2
3004	149	10	858	19	17	11	3
3005	115	10	858	19	17	11	3
3006	146	10	860	19	17	11	3
3007	129	10	860	19	17	11	2
3008	151	10	860	19	17	11	2
3009	144	11	905	20	18	12	2
3010	121	11	927	20	18	12	4
3011	142	11	927	20	18	12	4
3012	170	11	927	20	18	12	4
3013	185	11	943	20	18	13	4
3014	167	11	943	20	18	13	3
3015	158	11	971	21	19	13	2
3016	116	12	998	22	19	13	0
3017	136	12	1038	24	19	13	3
3018	140	12	1038	24	19	13	3
3019	149	12	1038	24	19	13	3
3020	154	13	1078	25	20	14	4
3021	150	13	1078	25	20	14	4
3022	151	13	1102	26	19	14	1
3023	159	13	1102	26	19	14	1
3024	140	14	1161	26	22	15	5
3025	135	14	1161	26	22	15	5
3026	155	14	1211	28	24	17	6
3027	126	15	1260	29	26	18	6
3028	118	16	1326	31	28	20	7
3029	116	16	1326	31	28	20	7
3030	112	16	1326	31	28	20	7
3031	153	16	1348	32	30	21	7
3032	121	16	1334	31	30	20	7
3033	135	16	1334	31	30	20	7
3034	128	16	1317	31	28	19	4
3035	146	16	1317	31	28	19	4
3036	152	14	1235	28	25	18	0
3037	167	14	1235	28	25	18	0
3038	156	15	1256	28	24	16	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3039	140	15	1256	28	24	16	3
3040	135	15	1256	28	24	16	3
3041	171	14	1198	26	23	16	4
3042	151	14	1198	26	23	16	4
3043	167	14	1198	27	23	15	1
3044	192	14	1198	27	23	15	1
3045	142	14	1199	27	23	16	2
3046	158	14	1199	27	23	16	2
3047	138	14	1218	28	23	15	4
3048	148	14	1198	26	23	16	4
3049	145	14	1198	27	23	15	1
3050	183	14	1198	27	23	15	1
3051	143	14	1199	27	23	16	2
3052	148	14	1199	27	23	16	2
3053	157	14	1218	28	23	15	4
3054	129	14	1198	26	23	16	4
3055	137	9	792	20	16	10	2
3056	120	9	792	20	16	10	2
3057	131	9	792	20	16	10	2
3058	139	11	932	23	19	12	5
3059	135	11	962	24	18	12	2
3060	85	11	962	24	18	12	2
3061	128	12	1030	25	20	13	5
3062	117	12	1030	25	20	13	5
3063	125	15	1295	32	26	17	2
3064	115	15	1295	32	26	17	2
3065	108	16	1355	55	32	10	1
3066	109	16	1299	54	34	11	2
3067	112	13	1000	48	33	12	2
3068	135	9	765	20	16	13	2
3069	110	9	765	20	16	13	2
3070	156	8	698	18	14	9	6
3071	153	8	698	18	14	9	6
3072	164	7	601	16	13	9	1
3073	131	7	601	16	13	9	1
3074	149	7	617	16	12	8	3
3075	181	7	617	16	12	8	3
3076	155	7	609	16	12	8	0
3077	126	7	609	16	12	8	0
3078	104	7	587	16	11	8	1
3079	115	7	587	16	11	8	1
3080	114	7	557	16	11	8	2
3081	126	7	557	16	11	8	2
3082	119	7	565	14	11	7	0
3083	118	7	565	14	11	7	0
3084	123	7	607	15	12	8	2
3085	130	7	607	15	12	8	2
3086	135	7	573	13	12	7	2
3087	133	7	573	13	12	7	2
3088	64	7	579	14	12	7	0
3089	85	7	556	14	11	9	0
3090	113	7	556	14	11	9	0
3091	151	7	552	14	11	7	3
3092	136	7	552	14	11	7	3
3093	148	7	563	14	12	8	1
3094	112	6	555	14	11	7	0
3095	115	6	555	14	11	7	0
3096	118	6	514	13	10	7	2
3097	128	6	514	13	10	7	2
3098	171	6	514	13	10	7	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3099	161	6	517	13	11	7	2
3100	141	6	517	13	11	7	2
3101	141	6	515	13	11	8	1
3102	103	6	512	13	11	8	3
3103	119	6	512	13	11	8	3
3104	115	6	557	14	12	2	2
3105	138	6	557	14	12	2	2
3106	130	6	552	14	12	7	0
3107	144	6	552	14	12	7	0
3108	120	6	520	14	11	7	3
3109	141	6	520	14	11	7	3
3110	127	5	457	12	10	7	0
3111	136	5	457	12	10	7	0
3112	158	6	459	12	10	7	2
3113	164	6	459	12	10	7	2
3114	141	6	459	12	10	7	2
3115	172	6	474	13	10	7	2
3116	159	6	474	13	10	7	2
3117	154	6	474	13	10	7	2
3118	153	6	472	13	10	7	0
3119	174	5	439	10	9	6	0
3120	168	5	439	10	9	6	0
3121	140	5	439	10	9	6	0
3122	145	5	401	13	8	6	0
3123	131	5	396	11	9	7	2
3124	150	5	396	11	9	7	2
3125	137	5	396	11	9	7	2
3126	147	6	505	14	11	7	2
3127	123	6	505	14	11	7	2
3128	133	6	538	15	12	8	2
3129	143	6	475	13	10	8	2
3130	162	6	475	13	10	8	2
3131	133	6	475	13	10	8	2
3132	166	6	462	13	10	7	3
3133	125	6	462	13	10	7	3
3134	162	6	488	14	11	8	0
3135	120	6	500	14	11	8	2
3136	169	6	500	14	11	8	2
3137	152	6	500	14	11	8	2
3138	110	6	498	14	11	7	1
3139	135	6	498	14	11	7	1
3140	129	7	567	15	12	8	2
3141	118	7	569	15	12	8	2
3142	136	7	569	15	12	8	2
3143	130	7	549	14	12	8	2
3144	152	7	569	15	12	8	0
3145	138	3	230	6	5	4	1
3146	164	3	230	6	5	4	1
3147	111	2	167	5	6	3	1
3148	140	5	458	12	10	7	0
3149	120	5	458	12	10	7	0
3150	120	6	471	13	10	7	2
3151	135	5	439	10	9	3	0
3152	112	5	401	13	8	3	0
3153	113	5	396	11	9	3	2
3154	87	5	455	13	10	5	0
3155	101	7	552	16	12	9	2
3156	113	7	552	16	12	9	2
3157	111	9	789	23	17	12	2
3158	121	10	843	24	18	12	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3159	128	11	888	33	24	9	4
3160	128	8	678	19	17	11	3
3161	31	7	548	17	14	10	3
3162	12	7	525	17	13	9	4
3163	12	6	506	14	12	8	0
3164	20	6	495	14	12	9	3
3165	12	6	455	13	11	8	2
3166	15	5	409	12	10	7	2
3167	13	5	381	12	9	7	2
3168	10	5	408	13	10	7	3
3169	16	6	451	14	11	8	3
3170	29	7	557	18	15	10	2
3171	10	10	774	26	20	13	4
3172	5	8	688	22	18	12	3
3173	64	10	831	27	21	15	4
3174	104	12	974	31	24	17	5
3175	90	11	919	28	23	16	4
3176	74	6	495	16	13	10	1
3177	95	6	495	16	13	10	2
3178	96	5	403	13	11	7	2
3179	116	5	425	13	11	9	3
3180	113	5	426	13	11	9	3
3181	71	6	464	14	11	9	2
3182	97	6	464	14	11	9	0
3183	91	6	464	14	11	9	0
3184	163	7	561	16	13	9	1
3185	151	7	561	16	13	9	1
3186	161	15	1298	36	29	20	2
3187	148	16	1340	37	30	21	5
3188	113	17	1381	38	31	22	7
3189	131	17	1381	38	31	22	7
3190	171	17	1381	38	31	22	7
3191	185	5	404	11	9	7	0
3192	147	5	404	11	9	7	0
3193	153	13	1065	31	25	17	6
3194	157	13	1065	31	25	17	6
3195	133	13	1049	33	24	17	2
3196	123	13	1049	33	24	17	2
3197	115	12	962	28	23	16	3
3198	113	11	874	23	21	15	4
3199	103	9	722	23	17	12	4
3200	125	9	722	23	17	12	4
3201	117	8	690	19	17	12	0
3202	90	8	675	19	17	12	3
3203	127	8	675	19	17	12	3
3204	152	8	641	18	16	10	0
3205	134	8	641	18	16	10	2
3206	127	8	638	17	15	10	2
3207	132	8	638	17	15	10	2
3208	152	8	642	18	16	10	4
3209	141	8	642	18	16	10	4
3210	174	8	670	19	17	12	4
3211	160	8	670	19	17	12	0
3212	186	8	686	20	19	13	2
3213	149	8	686	20	19	13	2
3214	130	8	686	20	19	13	3
3215	164	9	686	20	19	13	3
3216	184	8	646	19	18	13	3
3217	63	8	606	17	16	12	3
3218	115	7	576	16	15	11	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3219	108	7	567	15	14	10	3
3220	121	8	645	17	16	11	2
3221	115	9	722	19	17	12	1
3222	135	11	886	23	21	14	1
3223	93	11	886	23	21	14	1
3224	111	8	640	17	15	10	2
3225	118	8	640	17	15	10	2
3226	106	7	591	16	14	10	2
3227	106	7	541	15	13	9	2
3228	116	7	610	18	14	10	1
3229	116	7	610	18	14	10	0
3230	128	8	648	19	15	10	2
3231	118	8	648	19	15	10	2
3232	121	8	648	19	15	10	2
3233	92	8	619	19	15	10	2
3234	102	7	619	17	15	10	2
3235	94	7	550	16	13	9	3
3236	96	7	550	16	13	9	2
3237	124	7	549	16	13	9	0
3238	155	2	152	5	4	0	0
3239	128	2	152	5	4	0	0
3240	103	3	260	8	7	6	0
3241	95	5	458	12	10	7	0
3242	90	6	471	13	10	7	2
3243	107	5	439	10	9	3	0
3244	118	5	445	11	10	1	2
3245	147	5	475	11	10	1	2
3246	118	6	520	16	9	8	0
3247	96	6	520	16	9	8	0
3248	104	9	741	22	18	13	2
3249	90	9	733	22	15	12	4
3250	94	9	733	22	15	12	4
3251	120	10	857	25	20	14	2
3252	93	12	1011	30	24	16	2
3253	103	12	1011	30	24	16	2
3254	95	11	934	31	25	17	1
3255	110	17	1354	43	38	28	9
3256	170	17	1354	43	38	28	9
3257	120	11	841	29	25	19	6
3258	88	11	841	29	25	19	6
3259	125	11	866	29	26	19	0
3260	157	11	866	29	26	19	0
3261	164	11	860	28	25	19	5
3262	161	11	860	28	25	19	5
3263	137	13	1043	33	30	22	3
3264	140	13	1043	33	30	22	3
3265	104	13	1070	32	28	19	5
3266	115	13	1070	32	28	19	5
3267	153	23	1933	54	48	32	5
3268	158	23	1933	54	48	32	5
3269	173	23	1933	54	48	32	5
3270	166	31	2559	70	61	41	11
3271	145	31	2559	70	61	41	11
3272	140	37	3116	84	72	47	11
3273	167	37	3116	84	72	47	11
3274	164	18	1495	40	35	22	2
3275	167	18	1495	40	35	22	2
3276	164	18	1495	40	35	22	2
3277	145	13	1068	30	25	18	6
3278	151	13	1068	30	25	18	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3279	7	31	2579	75	53	44	11
3280	115	29	2382	65	63	42	10
3281	94	29	2382	65	63	42	10
3282	131	13	1018	29	28	19	6
3283	160	13	1018	29	28	19	6
3284	206	13	1018	29	28	19	6
3285	229	14	1116	32	31	21	2
3286	225	14	1116	32	31	21	2
3287	207	12	946	27	26	18	3
3288	212	10	777	22	21	15	4
3289	195	10	777	22	21	15	4
3290	201	6	483	14	14	10	0
3291	217	6	483	14	14	10	0
3292	176	6	483	14	14	10	0
3293	171	6	502	15	14	9	0
3294	182	6	502	15	14	9	0
3295	216	6	502	15	14	9	0
3296	196	7	605	17	16	11	3
3297	176	7	605	17	16	11	3
3298	193	7	605	17	16	11	3
3299	251	2	130	4	4	1	0
3300	208	2	130	4	4	1	0
3301	208	4	362	10	10	6	0
3302	173	7	595	17	16	11	1
3303	201	7	595	17	16	11	1
3304	162	7	595	17	16	11	1
3305	267	8	674	20	18	13	2
3306	216	9	753	22	21	15	2
3307	271	9	753	22	21	15	2
3308	269	9	753	22	21	15	2
3309	252	10	828	24	25	17	2
3310	280	10	828	24	25	17	2
3311	295	10	828	24	25	17	2
3312	288	11	872	26	27	19	4
3313	359	12	915	29	29	21	6
3314	272	12	915	29	29	21	6
3315	311	12	915	29	29	21	6
3316	278	9	753	22	21	15	2
3317	261	9	753	22	21	15	2
3318	239	10	828	24	25	17	2
3319	279	10	828	24	25	17	2
3320	244	10	736	26	25	18	5
3321	302	19	1472	53	50	37	10
3322	289	19	1472	53	50	37	10
3323	223	20	1538	56	53	39	10
3324	336	21	1605	58	56	41	10
3325	264	21	1605	58	56	41	10
3326	300	21	1605	58	56	41	10
3327	310	21	1605	58	56	41	10
3328	283	20	1544	56	54	40	10
3329	243	19	1484	54	52	39	9
3330	252	19	1484	54	52	39	9
3331	249	19	1484	54	52	39	9
3332	243	18	1360	48	47	35	11
3333	261	18	1360	48	47	35	11
3334	298	18	1360	48	47	35	11
3335	271	17	1274	44	43	32	10
3336	235	15	1187	41	39	29	9
3337	234	15	1187	41	39	29	9
3338	190	15	1187	41	39	29	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3339	282	18	1434	47	44	32	8
3340	279	21	1682	53	50	35	7
3341	305	21	1682	53	50	35	7
3342	235	18	1462	46	42	30	7
3343	280	16	1241	39	35	26	7
3344	232	16	1241	39	35	26	7
3345	233	16	1241	39	35	26	7
3346	232	14	1104	34	30	22	0
3347	190	18	1445	42	37	25	7
3348	118	2	137	5	5	2	1
3349	42	2	135	4	3	2	1
3350	67	2	136	5	4	3	1
3351	65	2	148	5	5	1	1
3352	14	2	170	5	6	3	1
3353	34	2	142	5	4	4	1
3354	54	2	153	5	5	4	0
3355	42	2	150	6	4	4	2
3356	30	2	148	5	4	0	0
3357	54	2	150	5	4	5	0
3358	59	2	135	5	5	4	0
3359	58	2	128	5	4	2	0
3360	36	2	118	4	4	4	0
3361	62	2	128	4	4	2	0
3362	74	2	126	4	4	4	1
3363	60	2	118	4	4	3	1
3364	53	3	198	6	6	5	2
3365	46	1	118	4	3	2	0
3366	64	1	118	4	3	2	0
3367	60	2	139	4	4	2	1
3368	86	2	130	5	4	2	0
3369	105	1	119	4	3	2	0
3370	22	2	131	4	4	3	0
3371	77	2	135	4	4	4	0
3372	72	2	138	4	4	2	1
3373	47	2	178	5	5	4	1
3374	98	2	178	5	5	4	1
3375	175	2	193	5	6	4	0
3376	234	2	193	5	6	4	0
3377	172	2	193	5	6	4	0
3378	154	3	219	8	6	5	1
3379	176	3	219	8	6	5	1
3380	178	3	219	8	6	5	1
3381	208	3	240	8	8	7	2
3382	239	3	240	8	8	7	2
3383	175	3	240	8	8	7	2
3384	174	3	246	8	9	8	2
3385	180	3	246	8	9	8	2
3386	158	3	246	8	9	8	2
3387	212	4	285	9	11	9	0
3388	244	4	285	9	11	9	0
3389	204	4	285	9	11	9	0
3390	238	4	323	11	12	10	0
3391	205	4	323	11	12	10	0
3392	174	4	323	11	12	10	0
3393	180	8	628	20	22	17	2
3394	150	8	628	20	22	17	2
3395	125	6	470	14	15	13	1
3396	187	5	425	13	14	11	2
3397	157	5	425	13	14	11	2
3398	190	5	425	13	14	11	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3399	143	5	432	13	14	11	0
3400	140	5	432	13	14	11	0
3401	113	7	531	16	18	14	4
3402	81	7	531	16	18	14	4
3403	225	9	707	22	25	20	6
3404	166	9	707	22	25	20	6
3405	147	8	640	20	22	17	1
3406	103	8	640	20	22	17	1
3407	127	8	640	19	21	17	2
3408	129	8	640	19	21	17	2
3409	189	8	640	19	21	17	2
3410	184	5	379	11	12	9	2
3411	200	5	379	11	12	9	2
3412	152	6	467	15	10	12	2
3413	122	6	467	15	10	12	2
3414	127	4	361	4	11	7	1
3415	121	6	495	14	14	10	1
3416	95	6	495	14	14	10	1
3417	158	5	413	10	12	9	1
3418	203	5	410	10	12	9	1
3419	153	5	410	10	12	9	1
3420	220	7	544	15	15	12	3
3421	148	7	544	15	15	12	3
3422	166	7	544	15	15	12	3
3423	144	7	567	16	16	11	2
3424	152	7	567	16	16	11	2
3425	128	7	566	16	16	12	3
3426	178	7	566	16	16	12	3
3427	208	8	602	17	17	12	5
3428	175	8	602	17	17	12	5
3429	127	8	623	18	17	13	5
3430	173	8	615	17	15	10	4
3431	164	7	600	17	15	10	4
3432	191	7	595	16	14	10	4
3433	204	7	596	15	14	10	4
3434	455	7	600	15	14	10	3
3435	242	7	598	16	14	11	3
3436	98	7	610	16	15	11	3
3437	81	7	530	16	16	11	3
3438	248	7	530	16	16	11	3
3439	145	7	530	16	16	11	3
3440	173	14	1029	37	32	28	8
3441	30	7	600	27	8	7	0
3442	35	7	532	18	18	14	2
3443	36	6	530	8	4	2	1
3444	36	6	545	8	5	3	1
3445	43	6	510	8	4	2	1
3446	17	6	520	9	4	2	1
3447	25	6	525	9	4	2	1
3448	14	5	495	9	5	2	1
3449	18	5	435	9	5	2	1
3450	19	5	435	9	7	2	1
3451	6	5	445	9	7	2	1
3452	162	5	425	9	7	2	1
3453	75	5	421	9	7	2	1
3454	134	5	425	9	7	2	1
3455	131	4	385	9	5	4	1
3456	133	5	400	9	5	4	1
3457	102	5	401	7	7	7	1
3458	88	5	351	12	11	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3459	78	4	351	12	11	8	1
3460	102	5	368	12	11	9	0
3461	105	5	368	12	11	9	0
3462	125	5	376	12	11	9	1
3463	137	5	376	12	11	9	1
3464	124	5	379	13	11	9	3
3465	144	5	379	13	11	9	3
3466	152	5	390	13	11	9	3
3467	142	5	390	13	11	9	3
3468	132	5	406	13	11	9	0
3469	87	5	406	13	11	9	0
3470	114	5	409	13	12	9	0
3471	98	6	423	14	12	10	5
3472	135	6	423	14	12	10	5
3473	121	5	406	14	11	9	2
3474	142	5	419	13	12	10	0
3475	116	5	419	13	12	10	0
3476	108	5	400	13	10	9	2
3477	111	5	400	13	10	9	2
3478	91	5	388	13	10	8	3
3479	133	5	388	13	10	8	3
3480	141	5	380	12	10	8	4
3481	112	5	380	12	10	8	4
3482	86	5	356	12	10	8	3
3483	108	4	332	11	9	8	2
3484	84	4	289	9	8	6	1
3485	115	4	289	9	8	6	1
3486	133	4	331	11	9	7	0
3487	153	4	331	11	9	7	0
3488	103	4	331	11	9	7	0
3489	115	4	325	10	9	7	4
3490	118	4	303	10	8	6	0
3491	148	4	303	10	8	6	0
3492	175	3	266	9	7	6	0
3493	179	3	266	9	7	6	0
3494	97	3	265	8	7	6	1
3495	111	4	362	11	9	7	1
3496	100	4	362	11	9	7	1
3497	162	4	362	11	9	7	1
3498	149	4	311	10	8	7	0
3499	158	7	566	16	14	10	4
3500	137	3	230	7	7	6	2
3501	141	5	358	10	10	8	2
3502	156	6	487	14	12	9	2
3503	156	5	440	14	11	8	2
3504	198	5	420	14	11	8	2
3505	131	5	430	13	11	8	2
3506	186	5	435	14	11	7	2
3507	177	5	445	14	12	7	2
3508	241	5	425	13	11	7	2
3509	220	5	440	12	11	8	3
3510	290	5	440	12	11	8	3
3511	242	5	440	12	11	8	3
3512	285	5	440	12	11	8	3
3513	173	28	2262	61	58	42	14
3514	267	28	2262	61	58	42	14
3515	167	34	2770	74	71	51	17
3516	214	34	2770	74	71	51	17
3517	148	34	2770	74	71	51	17
3518	185	33	2659	70	67	48	16

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3519	190	33	2659	70	67	48	16
3520	142	31	2507	65	63	45	14
3521	190	31	2507	65	63	45	14
3522	107	24	1917	51	48	35	10
3523	110	24	1917	51	48	35	10
3524	143	23	1861	49	47	34	10
3525	60	35	2848	78	74	54	16
3526	73	27	2227	60	57	41	11
3527	123	28	2245	62	59	44	13
3528	141	28	2245	62	59	44	13
3529	131	28	2245	62	59	44	13
3530	119	54	4333	128	123	86	22
3531	127	54	4333	128	123	86	22
3532	109	10	827	24	24	17	5
3533	109	12	931	26	26	19	6
3534	85	13	1036	29	29	20	7
3535	169	13	1036	29	29	20	7
3536	166	16	1287	35	33	23	7
3537	165	16	1287	35	33	23	7
3538	170	16	1287	35	33	23	7
3539	149	19	1581	44	37	26	4
3540	174	19	1581	44	37	26	4
3541	166	19	1581	44	37	26	4
3542	202	16	1303	37	23	21	4
3543	191	16	1303	37	23	21	4
3544	168	16	1303	37	23	21	4
3545	169	14	1129	32	25	17	6
3546	175	14	1129	32	25	17	6
3547	158	14	1129	32	25	17	6
3548	144	18	1524	44	37	26	2
3549	150	18	1524	44	37	26	2
3550	116	8	645	19	16	11	3
3551	106	8	694	20	16	11	2
3552	87	9	743	22	17	11	2
3553	112	9	743	22	17	11	2
3554	146	9	743	22	17	11	2
3555	119	12	960	27	22	15	4
3556	112	16	1376	38	30	20	4
3557	96	16	1376	38	30	20	4
3558	147	29	2451	67	53	34	9
3559	138	29	2451	67	53	34	9
3560	153	29	2451	67	53	34	9
3561	112	28	2370	64	51	33	9
3562	123	28	2370	64	51	33	9
3563	146	30	2509	69	54	35	10
3564	149	30	2509	69	54	35	10
3565	114	31	2638	72	56	36	10
3566	172	31	2638	72	56	36	10
3567	145	18	1557	43	34	23	0
3568	187	18	1557	43	34	23	0
3569	88	4	359	11	9	7	2
3570	176	4	359	11	9	7	2
3571	139	4	359	11	9	7	2
3572	213	3	266	8	8	5	0
3573	151	6	472	15	11	8	2
3574	170	6	472	15	11	8	2
3575	133	6	472	15	11	8	2
3576	135	6	486	16	12	8	2
3577	119	6	499	16	12	9	2
3578	134	7	602	19	15	11	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3579	101	8	657	20	17	12	4
3580	116	8	657	20	17	12	4
3581	116	8	657	20	17	12	4
3582	116	8	657	20	17	12	4
3583	116	8	657	20	17	12	4
3584	197	8	693	22	17	13	0
3585	162	8	693	22	17	13	0
3586	132	13	1075	35	26	19	4
3587	153	18	1457	48	35	25	8
3588	157	18	1457	48	35	25	8
3589	153	18	1457	48	35	25	8
3590	185	27	2161	64	54	37	12
3591	182	27	2161	64	54	37	12
3592	187	24	1950	62	55	35	11
3593	130	24	1900	62	52	36	11
3594	134	24	1910	63	53	35	11
3595	89	23	1855	62	53	36	11
3596	111	21	1728	53	43	30	8
3597	147	21	1728	53	43	30	8
3598	170	21	1728	53	43	30	8
3599	213	20	1600	52	42	31	8
3600	193	21	1650	52	43	32	8
3601	130	22	1750	53	43	32	8
3602	184	62	5012	153	123	85	26
3603	123	62	5012	153	123	85	26
3604	173	9	700	20	17	12	4
3605	143	9	720	20	17	12	4
3606	142	9	730	20	17	12	4
3607	79	8	740	14	12	8	1
3608	101	8	655	16	12	9	2
3609	145	5	456	12	10	7	1
3610	181	5	450	8	7	5	1
3611	129	5	400	8	7	5	1
3612	231	5	420	10	8	6	3
3613	153	5	435	10	8	6	3
3614	213	5	400	7	6	4	1
3615	115	5	425	7	6	4	1
3616	147	5	450	7	6	4	1
3617	163	5	395	8	6	4	2
3618	120	5	415	8	6	4	2
3619	134	5	420	8	8	5	2
3620	223	5	432	8	8	5	2
3621	106	5	426	9	9	7	1
3622	153	5	362	12	10	8	1
3623	101	6	512	16	15	11	2
3624	121	20	1507	49	50	39	10
3625	124	20	1507	49	50	39	10
3626	129	33	2444	82	88	70	20
3627	94	45	3382	114	125	100	31
3628	124	45	3382	114	125	100	31
3629	119	32	2443	80	82	64	16
3630	108	46	3468	113	120	95	30
3631	93	46	3468	113	120	95	30
3632	1	64	4884	162	171	132	37
3633	16	4	300	8	7	6	2
3634	15	4	310	7	6	6	2
3635	13	4	279	10	9	8	2
3636	17	4	306	11	10	9	2
3637	17	4	327	12	11	9	2
3638	17	4	323	11	11	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3639	16	3	249	9	8	7	2
3640	23	4	330	9	6	6	2
3641	17	7	556	18	18	15	8
3642	32	9	672	21	22	20	3
3643	29	9	672	21	22	20	2
3644	33	5	415	13	13	11	3
3645	31	5	415	13	13	11	3
3646	36	5	387	12	12	11	3
3647	17	6	425	14	13	11	4
3648	15	4	303	10	10	9	3
3649	24	4	320	10	9	3	2
3650	37	7	502	18	15	13	3
3651	4	4	318	11	9	8	1
3652	16	4	321	12	9	8	2
3653	16	4	326	11	8	8	2
3654	32	5	388	13	11	10	0
3655	8	7	578	21	17	14	2
3656	141	7	578	21	17	14	2
3657	245	5	372	14	13	11	3
3658	81	5	372	14	13	11	3
3659	191	5	353	14	12	10	3
3660	180	5	353	14	12	10	3
3661	161	5	353	14	12	10	3
3662	182	4	335	12	11	9	0
3663	173	4	335	12	11	10	2
3664	165	4	330	12	11	10	2
3665	163	4	330	12	11	10	2
3666	186	4	333	12	11	10	2
3667	168	4	336	12	11	10	2
3668	158	4	339	12	11	10	2
3669	166	4	342	12	11	10	2
3670	172	4	342	12	11	9	2
3671	171	4	342	11	11	8	1
3672	126	4	320	11	10	8	1
3673	143	4	320	11	10	8	1
3674	124	4	308	10	9	8	1
3675	149	4	334	10	10	8	1
3676	137	4	334	10	10	7	0
3677	105	5	376	12	11	9	0
3678	154	5	376	12	11	9	0
3679	148	5	376	12	11	9	0
3680	160	6	440	14	14	11	0
3681	153	6	440	14	14	11	0
3682	171	6	461	14	14	11	0
3683	136	6	461	14	14	11	0
3684	121	6	474	15	15	11	2
3685	154	6	474	15	15	11	2
3686	171	6	434	14	14	10	2
3687	159	5	394	12	12	9	2
3688	145	6	465	14	13	10	0
3689	115	6	512	15	14	11	0
3690	118	7	584	17	16	11	4
3691	144	6	476	14	14	10	3
3692	118	5	367	15	11	8	2
3693	162	5	382	15	11	9	0
3694	172	6	469	16	14	11	2
3695	200	5	420	17	4	1	1
3696	195	5	435	17	4	1	1
3697	161	5	465	13	4	1	1
3698	131	9	751	17	17	11	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3699	94	9	751	17	17	11	2
3700	140	29	2405	61	52	32	9
3701	210	29	2405	61	52	32	9
3702	176	29	2405	61	52	32	9
3703	191	26	2181	56	46	28	4
3704	171	26	2181	56	46	27	4
3705	136	26	2200	58	48	26	5
3706	160	26	2240	59	48	29	6
3707	108	29	2475	57	48	28	6
3708	167	26	2181	56	46	28	7
3709	151	10	850	20	24	16	1
3710	161	10	789	27	23	17	2
3711	153	10	775	27	23	17	2
3712	146	9	752	23	19	13	0
3713	165	9	752	23	19	13	0
3714	100	11	887	20	24	16	1
3715	133	7	550	20	15	11	2
3716	153	10	764	27	23	17	2
3717	120	10	764	27	23	17	2
3718	122	28	2189	76	65	45	11
3719	143	28	2189	76	65	45	11
3720	158	30	2365	82	68	44	10
3721	134	27	2145	75	64	42	10
3722	140	26	2039	71	60	39	8
3723	77	26	2039	71	60	39	8
3724	95	21	1694	60	50	32	0
3725	88	5	376	12	11	9	0
3726	142	6	440	14	14	11	0
3727	121	6	440	14	14	11	0
3728	133	6	461	14	14	11	0
3729	145	6	461	14	14	11	0
3730	167	5	435	17	4	1	1
3731	150	5	465	13	4	1	1
3732	141	4	415	4	3	2	1
3733	112	4	400	4	3	2	1
3734	110	3	301	9	7	1	1
3735	122	3	301	9	7	1	1
3736	138	4	420	4	2	1	1
3737	126	4	410	4	2	1	1
3738	93	4	395	7	5	4	1
3739	2	5	430	14	12	8	2
3740	111	5	410	6	6	4	2
3741	119	5	410	6	6	4	2
3742	108	6	461	14	14	11	2
3743	128	6	461	14	14	11	1
3744	103	5	435	17	4	1	1
3745	117	5	420	17	4	1	1
3746	138	5	435	17	4	1	1
3747	172	5	465	13	4	1	1
3748	142	5	415	13	13	11	3
3749	124	5	415	13	13	11	3
3750	150	5	387	12	12	11	3
3751	163	6	425	14	13	11	4
3752	159	5	415	13	13	11	3
3753	146	5	415	13	13	11	3
3754	129	5	387	12	12	11	3
3755	118	6	425	14	13	11	4
3756	119	4	303	10	10	9	3
3757	87	5	353	14	12	10	3
3758	119	5	353	14	12	10	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3759	103	5	353	14	12	10	3
3760	109	4	335	12	11	9	0
3761	60	4	335	12	11	10	2
3762	74	4	330	12	11	10	2
3763	95	4	330	12	11	10	2
3764	99	4	333	12	11	10	2
3765	197	4	336	12	11	10	2
3766	122	5	406	13	11	9	2
3767	113	5	409	13	12	9	0
3768	68	5	423	14	12	10	2
3769	121	5	423	14	12	10	2
3770	155	5	406	14	11	9	2
3771	138	5	419	13	12	10	2
3772	141	5	419	13	12	10	2
3773	142	5	400	13	10	9	2
3774	162	5	400	13	10	9	2
3775	143	5	388	13	10	8	3
3776	142	5	388	13	10	8	3
3777	90	5	380	12	10	8	4
3778	95	5	380	12	10	8	4
3779	170	5	356	12	10	8	3
3780	129	4	332	11	9	8	2
3781	137	4	289	9	8	6	1
3782	163	4	289	9	8	6	1
3783	137	4	331	11	9	7	2
3784	114	4	331	11	9	7	2
3785	107	4	331	11	9	7	2
3786	163	4	325	10	9	7	2
3787	150	5	425	14	13	11	2
3788	169	5	415	13	13	11	2
3789	125	5	420	13	10	8	3
3790	129	6	475	13	10	8	3
3791	119	6	456	12	10	8	3
3792	154	5	410	11	9	7	2
3793	121	5	450	12	8	6	1
3794	163	5	425	12	8	6	1
3795	133	5	423	12	8	6	1
3796	181	5	425	12	8	6	1
3797	147	6	485	11	7	5	1
3798	155	6	485	13	7	5	1
3799	78	5	475	13	7	5	1
3800	48	6	485	13	7	5	1
3801	70	5	465	13	8	5	2
3802	94	5	410	11	8	5	2
3803	143	5	420	11	8	5	2
3804	163	5	420	11	9	5	2
3805	154	5	435	11	9	5	2
3806	129	5	395	11	9	5	2
3807	112	4	369	11	8	5	2
3808	141	5	386	11	8	5	2
3809	138	5	385	13	8	5	2
3810	89	5	410	12	7	5	2
3811	124	5	400	12	7	5	2
3812	73	5	385	13	7	6	2
3813	93	0	0	0	0	0	0
3814	123	0	0	0	0	0	0
3815	83	0	0	0	0	0	0
3816	83	0	0	0	0	0	0
3817	83	2	164	6	5	0	0
3818	41	2	164	6	5	4	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3819	35	2	164	6	5	5	2
3820	28	2	128	5	4	3	2
3821	13	2	114	5	4	4	2
3822	2	1	104	3	4	3	2
3823	6	1	116	4	3	2	0
3824	15	1	117	4	4	2	0
3825	13	1	100	4	3	1	0
3826	19	1	105	3	3	2	0
3827	14	1	114	4	3	0	1
3828	15	1	118	4	3	1	0
3829	15	2	134	5	3	2	0
3830	14	2	180	5	5	2	0
3831	21	2	188	5	5	4	0
3832	22	2	198	6	5	4	0
3833	3	2	173	6	6	4	1
3834	183	2	174	6	6	4	2
3835	159	2	174	6	6	4	2
3836	120	2	182	6	6	4	0
3837	96	2	197	6	6	4	1
3838	90	2	197	6	6	4	1
3839	124	3	211	6	6	4	0
3840	141	3	211	6	6	4	0
3841	141	3	211	6	6	4	0
3842	141	3	227	7	7	4	2
3843	126	3	227	7	7	4	2
3844	96	3	236	7	6	5	0
3845	100	3	244	7	7	3	1
3846	97	3	244	7	7	3	1
3847	109	3	242	7	6	3	0
3848	112	3	242	8	7	2	0
3849	90	3	242	8	7	2	0
3850	87	3	241	7	6	3	0
3851	87	3	245	8	6	3	1
3852	103	3	245	8	6	3	1
3853	120	3	243	7	6	4	1
3854	93	3	243	7	6	4	1
3855	87	3	241	7	6	3	2
3856	100	3	294	8	7	3	1
3857	80	5	396	11	10	5	1
3858	98	5	396	11	10	5	1
3859	104	5	433	12	10	7	0
3860	133	5	433	12	10	7	0
3861	76	5	455	13	11	7	1
3862	87	6	500	15	12	8	0
3863	64	6	537	16	13	10	0
3864	70	7	594	14	16	11	3
3865	105	7	594	14	16	11	3
3866	83	5	442	14	12	8	0
3867	80	6	510	16	13	9	1
3868	132	6	510	16	13	9	1
3869	121	6	519	16	12	8	2
3870	154	6	519	16	12	8	2
3871	146	8	632	19	15	10	0
3872	111	8	641	19	15	10	2
3873	96	8	641	19	15	10	2
3874	119	7	612	18	14	9	2
3875	116	7	563	17	13	8	0
3876	115	7	563	17	13	8	0
3877	116	7	547	16	13	8	2
3878	77	6	531	16	12	8	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3879	66	6	515	16	12	9	2
3880	59	6	536	17	13	8	0
3881	62	6	532	17	12	8	2
3882	55	6	541	17	13	8	0
3883	100	6	541	17	13	8	0
3884	92	6	507	16	12	7	3
3885	118	6	518	17	12	8	0
3886	113	6	518	17	12	8	0
3887	152	6	518	17	12	8	0
3888	121	6	522	17	13	8	2
3889	139	6	512	18	12	8	0
3890	115	6	512	18	12	8	0
3891	121	7	613	19	14	9	3
3892	109	5	385	17	9	2	1
3893	112	4	367	16	8	1	0
3894	134	4	358	15	7	1	0
3895	89	4	358	11	9	2	0
3896	80	4	367	16	8	1	0
3897	91	4	358	15	7	1	0
3898	50	4	358	11	9	2	0
3899	86	6	458	14	11	7	2
3900	105	6	458	14	11	7	2
3901	93	6	493	15	11	6	2
3902	89	6	507	16	12	6	2
3903	90	6	507	17	12	7	2
3904	87	6	504	17	11	7	2
3905	90	6	525	17	12	7	2
3906	106	7	593	15	15	8	3
3907	119	8	661	19	17	10	3
3908	79	8	661	19	17	10	0
3909	83	11	877	26	24	15	4
3910	89	17	1346	38	42	27	4
3911	92	20	1549	45	49	32	8
3912	105	20	1606	55	52	33	8
3913	67	7	552	22	16	12	0
3914	65	38	3056	106	72	51	14
3915	112	40	3279	111	72	55	15
3916	63	40	3279	111	70	55	15
3917	43	32	2617	92	49	46	12
3918	44	9	716	25	20	13	3
3919	68	1	44	2	1	0	0
3920	95	1	115	4	3	1	2
3921	92	7	578	21	16	10	3
3922	1	7	538	18	15	9	2
3923	29	7	548	20	15	9	1
3924	33	6	524	20	11	10	2
3925	48	7	584	17	16	10	0
3926	34	7	599	18	16	10	1
3927	45	8	669	21	17	11	1
3928	26	8	677	23	17	11	2
3929	34	8	681	20	19	12	2
3930	43	8	681	20	19	12	2
3931	36	6	445	15	15	9	3
3932	130	3	245	9	7	4	0
3933	63	3	245	9	7	4	0
3934	59	4	285	9	8	5	1
3935	67	4	285	9	8	5	1
3936	49	4	328	11	8	5	0
3937	62	4	328	11	8	5	0
3938	67	4	344	11	8	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3939	69	4	360	11	9	5	1
3940	85	5	378	12	9	6	1
3941	70	5	382	12	10	6	2
3942	66	5	394	13	10	5	2
3943	50	5	394	13	10	6	2
3944	46	5	387	8	10	6	1
3945	42	5	387	10	10	6	0
3946	65	5	387	12	10	6	2
3947	38	5	378	11	10	6	2
3948	7	4	317	10	8	5	2
3949	55	4	316	9	8	6	2
3950	54	4	316	9	8	6	0
3951	54	4	318	9	8	4	1
3952	91	4	320	9	8	4	1
3953	40	4	337	10	8	5	0
3954	74	4	337	10	8	5	0
3955	72	4	333	8	8	5	2
3956	80	4	331	8	8	4	2
3957	71	4	331	8	8	4	0
3958	70	4	341	10	7	5	2
3959	61	4	354	10	8	5	1
3960	58	3	297	8	7	2	1
3961	41	3	297	8	7	1	1
3962	38	4	314	9	7	1	0
3963	19	4	300	7	7	3	1
3964	22	4	321	10	7	4	0
3965	53	4	328	10	7	4	0
3966	76	4	326	10	7	1	2
3967	48	4	338	11	7	5	1
3968	30	4	349	11	8	4	1
3969	61	4	349	11	8	4	0
3970	53	4	350	11	8	4	0
3971	63	4	357	11	8	4	0
3972	71	4	357	11	8	5	0
3973	31	4	357	12	8	4	1
3974	56	4	360	12	8	3	2
3975	76	4	360	12	8	3	2
3976	39	5	387	14	9	5	0
3977	48	7	616	20	13	6	2
3978	58	13	1097	37	25	11	3
3979	1	5	389	14	11	6	0
3980	77	5	376	14	10	5	1
3981	68	4	357	13	10	5	1
3982	97	4	342	13	9	5	0
3983	85	4	342	13	9	5	0
3984	109	4	330	13	8	5	0
3985	75	4	334	7	8	4	0
3986	100	4	334	7	8	4	0
3987	112	4	343	11	9	3	0
3988	80	4	358	11	9	5	0
3989	81	4	366	11	8	2	0
3990	95	4	363	11	9	5	2
3991	118	4	363	11	9	5	2
3992	86	5	378	11	9	5	2
3993	90	5	384	12	9	4	0
3994	111	5	384	12	9	4	0
3995	90	5	425	13	10	4	0
3996	66	5	421	13	9	5	0
3997	62	5	445	14	10	5	1
3998	44	5	458	12	10	5	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3999	42	5	445	14	10	5	1
4000	60	5	421	13	9	5	0
4001	79	5	445	14	10	5	1
4002	73	5	458	12	10	5	1
4003	94	5	445	14	10	5	1
4004	122	8	705	19	13	6	2
4005	106	8	705	19	13	6	1
4006	106	8	705	19	13	6	1
4007	95	5	462	13	9	5	0
4008	109	5	401	14	12	10	0
4009	106	5	401	14	12	10	0
4010	127	5	424	15	13	9	0
4011	114	5	424	15	13	9	0
4012	153	6	470	16	13	10	0
4013	196	6	470	16	13	10	0
4014	212	7	545	18	15	11	0
4015	158	7	545	18	15	11	0
4016	196	7	545	18	15	11	0
4017	197	7	592	19	15	11	0
4018	173	7	592	19	15	11	0
4019	164	7	592	19	15	11	0
4020	185	8	680	22	17	11	0
4021	167	8	680	22	17	11	0
4022	117	9	749	23	18	12	0
4023	112	9	783	26	18	13	0
4024	94	9	783	26	18	13	0
4025	102	10	833	25	19	13	0
4026	104	10	828	22	20	12	0
4027	149	10	824	23	20	12	0
4028	127	10	820	25	19	13	0
4029	98	10	820	25	19	13	0
4030	106	10	806	24	19	13	0
4031	101	10	834	26	19	13	0
4032	105	10	834	26	19	13	0
4033	126	10	845	26	20	13	0
4034	144	10	845	26	20	13	0
4035	146	10	845	26	20	13	0
4036	140	8	747	23	18	0	0
4037	141	9	763	25	19	13	0
4038	138	9	771	26	20	14	0
4039	120	9	771	26	20	14	0
4040	183	9	771	26	20	14	0
4041	179	10	815	27	21	15	0
4042	169	10	815	27	21	15	0
4043	113	9	777	26	20	14	0
4044	65	10	784	26	20	14	0
4045	64	10	826	28	21	15	0
4046	72	10	839	28	22	15	0
4047	92	10	839	28	22	15	0
4048	45	11	880	30	23	16	0
4049	77	12	971	36	26	17	0
4050	81	12	971	36	26	17	0
4051	91	12	957	36	26	17	0
4052	125	12	943	35	25	17	0
4053	107	9	775	26	20	14	0
4054	93	9	775	26	20	14	0
4055	118	9	722	24	19	13	0
4056	83	10	840	26	22	14	0
4057	87	10	840	26	22	14	0
4058	146	10	850	26	22	14	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4059	154	10	850	25	21	14	0
4060	190	10	850	25	21	14	0
4061	183	11	884	26	21	14	0
4062	147	12	1029	29	24	15	0
4063	108	4	313	10	8	6	0
4064	145	4	313	10	8	6	0
4065	157	11	910	25	21	13	0
4066	185	11	910	25	21	13	0
4067	217	11	910	25	21	13	0
4068	200	12	996	27	23	14	0
4069	161	12	1032	30	23	15	0
4070	122	12	1032	30	23	15	0
4071	110	12	971	36	26	17	0
4072	104	12	943	35	25	17	0
4073	124	12	943	35	25	17	0
4074	206	12	1022	31	25	16	0
4075	245	13	1101	26	25	15	0
4076	182	13	1101	26	25	15	0
4077	132	14	1178	26	27	15	0
4078	166	14	1178	29	27	16	0
4079	242	14	1178	31	27	16	0
4080	209	14	1162	31	26	16	0
4081	201	14	1162	31	26	16	0
4082	240	14	1162	31	26	16	0
4083	274	15	1232	34	28	17	0
4084	281	15	1232	34	28	17	0
4085	255	14	1174	33	26	16	0
4086	275	14	1181	33	27	17	0
4087	201	14	1188	33	27	17	0
4088	195	14	1208	33	28	17	0
4089	294	14	1227	33	28	17	0
4090	124	14	1227	33	28	17	0
4091	106	17	1413	39	32	20	0
4092	139	17	1413	39	32	20	0
4093	159	33	2782	84	73	45	0
4094	188	50	4150	128	114	70	0
4095	60	13	1071	39	32	22	0
4096	129	13	1018	37	31	21	0
4097	104	12	967	37	27	19	0
4098	132	14	1196	38	31	21	0
4099	155	14	1196	38	31	21	0
4100	155	13	1067	34	28	20	0
4101	129	11	938	30	25	19	0
4102	112	10	854	28	23	16	0
4103	124	11	864	28	24	16	0
4104	110	10	864	20	24	16	0
4105	126	11	864	29	24	16	0
4106	123	11	868	30	24	16	0
4107	142	11	871	30	23	15	0
4108	120	11	871	30	23	15	0
4109	128	11	915	31	24	17	0
4110	150	11	915	31	24	17	0
4111	129	12	950	32	25	17	0
4112	142	12	950	32	25	16	0
4113	140	12	998	32	26	17	0
4114	138	12	998	32	26	17	0
4115	138	12	1027	34	26	17	0
4116	109	12	1027	34	26	17	0
4117	128	12	1027	34	26	17	0
4118	178	13	1041	34	26	17	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4119	188	13	1055	34	26	17	0
4120	167	13	1055	34	26	17	0
4121	119	13	1055	34	26	17	0
4122	153	13	1059	34	26	17	0
4123	171	13	1062	34	26	17	0
4124	130	13	1104	36	28	18	0
4125	104	13	1104	36	28	18	0
4126	162	14	1183	40	32	21	0
4127	168	15	1230	42	35	23	0
4128	134	16	1276	44	37	24	0
4129	119	16	1276	44	37	24	0
4130	121	15	1230	42	35	23	0
4131	96	17	1358	48	40	27	0
4132	185	18	1463	52	44	30	0
4133	113	18	1463	52	44	30	0
4134	111	18	1473	54	45	31	0
4135	131	18	1473	54	45	31	0
4136	140	17	1391	51	43	30	0
4137	137	17	1391	51	43	30	0
4138	151	17	1366	50	42	30	0
4139	161	17	1342	49	41	29	0
4140	167	15	1200	44	36	26	0
4141	115	15	1200	44	36	26	0
4142	129	14	1148	44	33	24	0
4143	124	14	1095	41	30	22	0
4144	123	14	1095	41	30	22	0
4145	112	14	1095	41	30	22	0
4146	162	13	1063	36	30	20	0
4147	114	13	1063	36	30	20	0
4148	130	13	1079	36	31	19	0
4149	123	14	1140	35	31	21	0
4150	107	14	1140	35	31	21	0
4151	109	13	1074	32	29	20	0
4152	134	13	1074	32	29	20	0
4153	115	13	1077	32	28	20	0
4154	196	14	1155	34	30	21	0
4155	72	12	985	35	29	20	0
4156	94	12	980	30	26	18	0
4157	71	12	993	30	26	19	0
4158	52	13	1031	33	27	19	0
4159	93	13	1040	31	27	19	0
4160	86	13	1029	31	28	19	0
4161	112	13	1029	31	28	19	0
4162	88	12	1011	32	27	18	0
4163	119	13	1079	35	29	20	0
4164	108	13	1079	35	29	20	0
4165	120	13	1080	36	29	21	0
4166	93	13	1080	36	29	21	0
4167	99	15	1235	43	33	23	0
4168	111	15	1253	40	36	22	0
4169	138	15	1253	40	36	22	0
4170	124	14	1159	37	32	22	0
4171	122	14	1159	37	32	22	0
4172	72	14	1165	36	32	22	0
4173	121	15	1236	39	35	23	0
4174	108	15	1236	39	35	23	0
4175	119	15	1234	38	35	24	0
4176	119	15	1234	38	35	24	0
4177	118	15	1263	40	35	24	0
4178	50	15	1263	40	35	24	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4179	167	15	1216	38	33	22	0
4180	141	13	1063	34	29	20	0
4181	119	13	1063	34	29	20	0
4182	218	13	1039	33	28	19	0
4183	87	13	1039	33	28	19	0
4184	137	14	1139	36	30	19	0
4185	108	16	1346	41	35	23	0
4186	139	16	1346	41	35	23	0
4187	141	17	1379	42	36	23	0
4188	94	6	467	18	16	12	0
4189	75	7	572	23	19	14	0
4190	2	6	452	18	14	11	0
4191	5	6	466	18	15	12	0
4192	5	6	481	19	16	13	0
4193	20	5	389	16	13	12	0
4194	7	4	272	10	10	7	0
4195	2	4	332	13	12	10	0
4196	11	3	218	9	7	6	0
4197	5	3	241	9	8	7	0
4198	5	3	252	9	7	5	0
4199	21	4	305	10	8	6	0
4200	18	4	358	12	9	5	0
4201	43	5	427	14	10	7	0
4202	35	6	478	16	11	8	0
4203	55	6	472	15	11	8	0
4204	30	5	435	14	11	7	0
4205	44	5	422	14	10	7	0
4206	49	5	407	14	10	7	0
4207	44	5	400	15	10	7	0
4208	57	6	506	14	13	8	0
4209	46	6	499	14	13	8	0
4210	92	6	499	14	13	8	0
4211	68	5	429	12	12	8	0
4212	39	5	429	12	12	8	0
4213	87	5	410	13	11	7	0
4214	86	5	427	11	11	8	0
4215	102	5	427	11	11	8	0
4216	98	5	411	11	11	7	0
4217	117	6	489	15	13	7	0
4218	73	5	426	14	11	7	0
4219	75	5	446	15	11	7	0
4220	50	5	446	15	11	7	0
4221	78	5	453	6	12	8	0
4222	75	5	453	11	12	8	0
4223	114	5	412	11	10	7	0
4224	55	4	361	9	9	5	0
4225	54	5	393	10	10	6	0
4226	71	4	329	9	8	6	0
4227	52	4	314	8	8	4	0
4228	109	3	294	7	7	4	0
4229	73	3	289	7	7	4	0
4230	88	3	289	7	7	4	0
4231	63	4	317	8	8	5	0
4232	57	4	317	8	8	5	0
4233	16	4	334	9	8	5	0
4234	57	4	345	10	9	6	0
4235	54	4	359	10	9	6	0
4236	81	4	359	10	9	6	0
4237	119	4	349	11	8	5	0
4238	75	4	347	10	8	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4239	79	4	347	11	8	5	0
4240	105	4	347	11	8	5	0
4241	87	4	341	11	8	4	0
4242	95	5	400	13	9	5	0
4243	76	5	400	13	9	5	0
4244	119	5	403	5	9	5	0
4245	82	5	398	12	8	5	0
4246	124	5	437	13	9	1	0
4247	77	6	510	15	11	6	0
4248	109	6	510	15	11	6	0
4249	107	6	478	14	10	6	0
4250	77	6	545	17	12	6	0
4251	156	7	562	17	12	7	0
4252	116	7	628	19	14	9	0
4253	105	7	591	18	13	9	0
4254	68	7	568	17	13	9	0
4255	68	7	568	17	13	9	0
4256	60	6	517	16	12	8	0
4257	92	6	517	16	12	8	0
4258	69	6	541	16	13	8	0
4259	45	8	660	21	15	10	0
4260	70	7	560	20	14	8	0
4261	65	7	545	19	12	9	0
4262	40	7	613	18	14	9	0
4263	81	7	550	17	14	8	0
4264	94	7	595	18	14	8	0
4265	182	7	600	18	13	8	0
4266	120	7	610	18	12	8	0
4267	145	7	629	19	14	8	0
4268	163	7	629	19	14	8	0
4269	85	9	737	22	16	9	0
4270	213	9	798	24	17	10	0
4271	161	1	70	2	2	0	0
4272	144	8	668	21	14	8	0
4273	127	9	794	22	17	10	0
4274	137	9	794	22	17	10	0
4275	149	10	873	20	19	10	0
4276	112	12	1067	25	23	13	0
4277	110	12	1067	25	23	13	0
4278	117	12	1067	25	23	13	0
4279	98	13	1149	27	25	14	0
4280	114	16	1394	34	32	18	0
4281	116	16	1394	34	32	18	0
4282	100	35	2938	96	78	46	0
4283	47	6	536	17	13	8	0
4284	57	6	536	17	13	8	0
4285	14	6	536	17	13	8	0
4286	168	7	548	18	13	8	0
4287	204	7	559	18	13	8	0
4288	118	7	594	19	14	8	0
4289	106	9	770	24	18	11	0
4290	96	9	770	24	18	11	0
4291	114	10	835	27	20	12	0
4292	129	10	835	27	20	12	0
4293	124	11	894	29	22	14	0
4294	105	11	894	29	22	14	0
4295	106	11	937	30	23	14	0
4296	89	11	937	30	23	14	0
4297	114	11	881	28	21	13	0
4298	136	11	881	28	21	13	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4299	149	11	888	28	21	13	0
4300	138	11	895	28	21	13	0
4301	113	11	901	29	21	13	0
4302	109	11	908	29	22	13	0
4303	123	11	915	29	22	13	0
4304	119	11	922	29	22	13	0
4305	168	11	928	30	22	13	0
4306	137	11	935	30	22	13	0
4307	137	11	942	30	22	13	0
4308	134	11	949	30	22	13	0
4309	133	11	956	30	23	13	0
4310	163	11	962	31	23	13	0
4311	154	12	969	31	23	13	0
4312	153	12	976	31	23	13	0
4313	153	12	976	31	23	13	0
4314	145	12	976	31	23	13	0
4315	126	13	1111	40	25	16	0
4316	124	14	1144	35	27	16	0
4317	127	14	1144	35	27	16	0
4318	138	13	1119	34	27	15	0
4319	137	13	1119	34	27	15	0
4320	115	13	1119	33	27	15	0
4321	43	12	1033	33	25	14	0
4322	105	11	934	31	23	13	0
4323	115	11	934	31	23	13	0
4324	78	12	1024	34	25	14	0
4325	71	11	883	30	22	13	0
4326	178	11	883	30	22	13	0
4327	159	10	846	28	21	12	0
4328	163	10	808	27	20	12	0
4329	163	10	808	27	20	12	0
4330	150	9	714	24	18	11	0
4331	129	8	621	21	16	10	0
4332	117	9	762	25	19	12	0
4333	119	9	762	25	19	12	0
4334	113	9	787	27	19	11	0
4335	63	9	790	27	19	12	0
4336	168	10	792	27	19	12	0
4337	169	8	638	22	16	9	0
4338	156	8	638	22	16	9	0
4339	173	8	638	22	16	9	0
4340	159	10	824	28	20	11	0
4341	120	12	1028	34	24	13	0
4342	131	10	880	29	21	11	0
4343	106	5	370	14	11	8	0
4344	72	8	653	24	16	10	0
4345	240	11	936	33	22	13	0
4346	176	12	977	34	23	13	0
4347	176	12	1018	34	24	13	0
4348	162	10	850	30	23	12	0
4349	148	10	860	30	23	14	0
4350	131	11	885	31	24	14	0
4351	120	9	745	21	18	10	0
4352	102	9	745	21	18	10	0
4353	110	8	685	14	12	5	0
4354	112	8	689	14	11	7	0
4355	135	10	850	29	19	10	0
4356	82	7	619	20	14	8	0
4357	126	5	388	11	10	6	0
4358	163	10	900	22	20	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4359	126	11	910	24	22	12	0
4360	118	12	1033	29	27	15	0
4361	104	13	1091	30	30	17	0
4362	115	13	1091	30	30	17	0
4363	138	14	1145	33	31	18	0
4364	106	14	1199	34	33	19	0
4365	109	14	1199	34	33	19	0
4366	78	16	1297	36	35	20	0
4367	148	16	1381	38	36	20	0
4368	139	16	1381	38	36	20	0
4369	140	18	1486	40	38	21	0
4370	134	18	1486	40	38	21	0
4371	124	19	1569	42	41	23	0
4372	159	21	1738	48	47	25	0
4373	114	21	1738	48	47	25	0
4374	149	28	2388	68	64	32	0
4375	140	36	3039	88	81	39	0
4376	104	41	3420	98	94	46	0
4377	121	41	3420	98	94	46	0
4378	145	41	3420	98	94	46	0
4379	117	41	3420	98	94	46	0
4380	126	30	2544	76	71	35	0
4381	193	6	457	18	12	8	0
4382	159	6	511	19	14	8	0
4383	9	6	532	20	14	8	0
4384	25	7	608	23	17	10	0
4385	26	9	741	26	19	11	0
4386	32	15	1245	46	32	18	0
4387	26	8	627	24	17	12	0
4388	8	5	431	16	14	9	0
4389	47	6	501	19	15	10	0
4390	69	7	529	19	17	11	0
4391	12	7	571	21	18	12	0
4392	64	7	576	22	19	12	0
4393	58	9	713	27	22	15	0
4394	11	8	650	25	19	13	0
4395	45	7	534	19	17	11	0
4396	43	8	638	24	20	14	0
4397	73	6	517	19	16	11	0
4398	21	7	586	22	17	10	0
4399	14	9	777	24	22	13	0
4400	75	10	777	28	22	13	0
4401	82	7	599	23	17	10	0
4402	20	12	979	38	23	13	0
4403	37	12	979	38	23	13	0
4404	48	7	562	22	18	10	0
4405	55	9	767	32	22	13	0
4406	8	10	795	33	23	13	0
4407	38	10	795	33	23	12	0
4408	109	9	739	30	22	12	0
4409	7	7	527	22	16	9	0
4410	86	7	527	22	16	9	0
4411	152	6	491	20	14	8	0
4412	93	6	491	20	14	8	0
4413	76	6	472	19	13	8	0
4414	100	5	446	17	12	7	0
4415	117	6	468	17	12	7	0
4416	135	7	544	19	13	8	0
4417	174	7	544	19	13	8	0
4418	156	7	544	19	13	8	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4419	167	8	666	22	15	9	0
4420	96	10	835	28	17	10	0
4421	115	10	835	28	17	10	0
4422	90	11	968	28	19	11	0
4423	96	11	968	28	19	11	0
4424	122	13	1110	28	24	13	0
4425	102	13	1110	25	24	13	0
4426	125	10	875	20	19	10	0
4427	119	13	1090	30	23	12	0
4428	125	15	1249	36	26	15	0
4429	92	15	1249	36	26	15	0
4430	92	15	1249	36	26	15	0
4431	102	13	1125	32	24	13	0
4432	151	13	1125	32	24	13	0
4433	121	13	1098	31	24	12	0
4434	113	13	1098	31	24	12	0
4435	86	13	1119	32	24	13	0
4436	189	13	1096	31	23	12	0
4437	88	3	280	9	7	4	0
4438	78	8	702	20	14	8	0
4439	112	8	702	20	14	8	0
4440	152	8	702	20	14	8	0
4441	117	8	652	18	13	7	0
4442	83	10	858	25	17	8	0
4443	87	9	800	25	17	7	0
4444	80	10	840	26	16	7	0
4445	88	10	900	27	18	7	0
4446	103	12	1057	29	21	11	0
4447	100	12	1057	29	21	11	0
4448	110	9	750	25	19	6	0
4449	108	9	780	26	18	6	0
4450	108	10	866	23	18	7	0
4451	169	14	1221	32	24	12	0
4452	105	14	1221	32	24	12	0
4453	117	14	1240	34	24	12	0
4454	153	14	1240	34	24	11	0
4455	220	14	1250	34	24	12	0
4456	92	14	1250	34	24	12	0
4457	125	14	1250	34	24	12	0
4458	148	18	1538	42	30	15	0
4459	106	18	1526	41	29	15	0
4460	77	18	1526	41	29	15	0
4461	156	18	1526	41	29	15	0
4462	105	17	1453	39	28	14	0
4463	115	18	1582	43	31	15	0
4464	86	18	1582	43	31	15	0
4465	82	14	1237	29	24	12	0
4466	121	14	1237	29	24	12	0
4467	98	14	1248	34	24	11	0
4468	115	14	1222	34	24	12	0
4469	136	14	1222	34	24	12	0
4470	121	14	1222	34	24	12	0
4471	168	14	1223	35	24	11	0
4472	76	14	1223	35	24	11	0
4473	118	19	1611	54	36	17	0
4474	118	6	466	18	13	8	0
4475	24	5	399	14	10	7	0
4476	34	5	407	14	12	7	0
4477	7	6	525	18	16	9	0
4478	20	6	477	18	15	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4479	11	7	573	23	16	9	0
4480	23	8	654	24	19	11	0
4481	32	5	406	15	12	7	0
4482	4	5	386	14	11	7	0
4483	26	6	456	17	13	7	0
4484	30	6	476	19	13	7	0
4485	24	6	449	17	13	7	0
4486	44	6	528	19	14	8	0
4487	26	6	526	19	14	8	0
4488	33	8	652	25	18	10	0
4489	40	8	673	29	20	13	0
4490	94	20	1416	69	65	47	4
4491	40	18	1348	61	58	40	7
4492	66	17	1259	56	51	37	4
4493	79	15	1128	48	42	30	0
4494	58	13	1087	40	27	17	0
4495	85	13	1087	40	27	17	0
4496	118	12	975	33	25	16	0
4497	118	12	975	33	25	16	0
4498	200	11	940	22	24	14	0
4499	167	11	940	22	24	14	0
4500	160	11	940	22	24	14	0
4501	167	11	956	26	24	14	0
4502	195	12	971	29	24	13	0
4503	191	12	971	29	24	13	0
4504	175	12	1031	31	25	14	0
4505	170	12	1031	31	25	14	0
4506	99	12	1046	31	25	14	0
4507	178	12	1046	31	25	14	0
4508	198	13	1097	32	25	14	0
4509	141	13	1097	32	25	14	0
4510	85	12	1039	29	24	13	0
4511	148	12	1039	29	24	13	0
4512	142	13	1071	30	24	14	0
4513	142	15	1250	35	27	15	0
4514	185	15	1250	35	27	15	0
4515	168	4	366	11	9	6	0
4516	193	4	366	11	9	6	0
4517	211	4	366	11	9	6	0
4518	167	13	1096	32	25	15	0
4519	185	13	1096	32	25	15	0
4520	189	13	1096	32	25	15	0
4521	192	18	1513	42	33	18	0
4522	193	18	1513	42	33	18	0
4523	196	18	1513	42	33	18	0
4524	139	18	1583	43	34	18	0
4525	179	11	890	26	20	12	0
4526	200	11	980	25	18	5	0
4527	197	11	1000	26	20	5	0
4528	238	11	1010	25	21	5	0
4529	160	12	1020	25	20	5	0
4530	173	11	985	25	21	5	0
4531	224	11	995	26	21	6	0
4532	176	11	985	25	22	6	0
4533	226	7	610	25	12	6	0
4534	137	14	1174	32	24	13	0
4535	218	15	1295	36	26	14	0
4536	218	16	1416	39	29	15	0
4537	247	16	1416	39	29	15	0
4538	180	16	1416	39	29	15	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4539	145	13	1120	31	23	12	0
4540	183	13	1120	31	23	12	0
4541	155	14	1174	33	25	13	0
4542	185	14	1174	33	25	13	0
4543	195	14	1174	33	25	13	0
4544	235	14	1210	35	26	14	0
4545	193	14	1210	35	26	14	0
4546	181	14	1210	35	26	14	0
4547	200	14	1210	35	26	14	0
4548	205	14	1210	35	26	14	0
4549	210	16	1331	39	30	16	0
4550	195	16	1331	39	30	16	0
4551	200	15	1246	36	28	16	0
4552	177	14	1161	34	26	15	0
4553	185	14	1161	34	26	15	0
4554	264	14	1161	34	26	15	0
4555	181	15	1274	37	29	17	0
4556	213	15	1274	37	29	17	0
4557	210	15	1266	38	29	16	0
4558	198	15	1257	38	29	15	0
4559	175	15	1257	38	29	15	0
4560	185	15	1270	38	30	16	0
4561	175	15	1282	38	30	16	0
4562	212	15	1282	38	30	16	0
4563	120	16	1358	41	31	17	0
4564	185	16	1358	41	31	17	0
4565	139	16	1358	41	31	17	0
4566	180	18	1506	45	35	19	0
4567	153	20	1690	51	41	23	0
4568	155	26	2190	76	57	33	2
4569	103	33	2690	101	72	42	3
4570	2	33	2690	101	72	42	3
4571	1	11	985	25	22	6	0
4572	8	11	1010	25	21	5	0
4573	29	12	1020	25	20	5	0
4574	32	11	985	25	21	5	0
4575	25	12	1035	27	20	5	0
4576	32	15	1270	38	30	16	0
4577	33	15	1282	38	30	16	0
4578	20	15	1282	38	30	16	0
4579	13	16	1358	41	31	17	0
4580	4	4	323	10	8	5	0
4581	25	6	473	16	11	6	0
4582	40	6	477	16	11	7	0
4583	23	6	471	15	11	7	0
4584	38	5	431	14	11	7	0
4585	56	5	407	13	11	7	0
4586	42	4	315	12	9	6	0
4587	7	3	267	10	8	5	0
4588	53	3	270	10	8	5	0
4589	41	3	275	10	8	6	0
4590	44	4	306	11	9	7	0
4591	1	4	306	11	9	7	0
4592	1	4	322	13	9	6	1
4593	1	2	193	7	6	4	0
4594	1	3	222	9	6	4	0
4595	9	3	231	8	6	5	0
4596	31	3	231	9	6	5	1
4597	24	2	162	6	5	3	2
4598	6	3	226	8	6	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4599	1	4	336	12	9	6	1
4600	16	4	348	12	9	5	0
4601	14	4	348	12	9	5	0
4602	141	4	348	13	9	5	0
4603	163	4	348	13	9	5	2
4604	77	4	346	13	8	5	2
4605	97	4	353	12	9	4	0
4606	84	4	366	13	9	5	0
4607	86	4	366	13	9	5	0
4608	101	5	402	14	9	5	0
4609	76	5	402	14	9	5	0
4610	88	5	402	14	9	5	0
4611	65	5	411	14	10	5	0
4612	84	5	410	14	10	5	0
4613	108	3	215	8	6	4	0
4614	90	3	215	8	6	4	0
4615	100	4	364	12	8	4	0
4616	102	4	364	12	8	4	0
4617	87	4	375	13	8	4	0
4618	89	5	445	15	10	4	0
4619	105	5	445	15	10	4	0
4620	120	6	475	16	10	5	0
4621	87	6	495	17	11	6	0
4622	109	6	495	17	11	6	0
4623	90	6	483	16	11	6	0
4624	92	6	483	16	11	6	0
4625	102	6	492	17	10	6	0
4626	126	7	553	20	12	6	0
4627	118	8	658	25	14	7	2
4628	91	8	658	25	14	7	2
4629	127	9	770	26	17	8	2
4630	106	9	770	26	17	8	0
4631	130	11	949	25	23	12	0
4632	69	23	1935	75	51	24	2
4633	121	22	1862	72	48	23	0
4634	65	21	1773	69	45	21	1
4635	76	19	1608	61	40	19	1
4636	49	18	1489	55	37	18	0
4637	61	16	1312	48	32	14	1
4638	76	15	1217	45	29	14	1
4639	64	14	1197	43	27	13	0
4640	79	13	1091	38	24	12	0
4641	72	13	1091	38	24	12	0
4642	91	12	1028	35	22	11	0
4643	87	12	1028	35	22	11	0
4644	85	10	893	31	19	9	0
4645	79	10	843	29	18	10	1
4646	82	12	1004	36	19	10	1
4647	101	11	909	29	17	9	0
4648	62	7	623	19	12	5	0
4649	95	7	623	19	12	6	1
4650	24	6	498	14	9	5	0
4651	132	6	500	14	9	5	0
4652	144	6	500	13	9	1	0
4653	98	6	514	14	9	4	0
4654	81	6	522	14	9	4	0
4655	78	6	522	14	9	4	0
4656	90	6	516	13	9	4	0
4657	97	6	524	14	9	4	0
4658	102	6	524	14	9	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4659	77	6	558	15	10	5	0
4660	72	7	608	17	11	5	0
4661	77	8	666	18	12	5	0
4662	67	9	766	22	14	7	1
4663	50	10	879	26	17	7	1
4664	64	12	1007	30	21	9	1
4665	119	16	1361	47	32	14	2
4666	68	3	247	10	6	4	0
4667	127	4	352	15	12	7	0
4668	21	4	319	11	8	5	0
4669	21	4	296	11	7	5	0
4670	16	3	266	10	6	4	0
4671	18	4	328	10	8	4	0
4672	34	6	493	15	11	6	0
4673	53	6	520	16	12	7	0
4674	21	6	522	16	12	7	1
4675	93	6	489	14	11	7	0
4676	22	5	441	13	10	6	0
4677	33	4	370	13	9	5	0
4678	48	5	429	14	11	7	0
4679	47	5	440	14	12	7	1
4680	30	5	409	14	11	7	0
4681	4	6	449	16	13	9	0
4682	45	6	483	17	14	9	0
4683	62	7	553	21	15	9	1
4684	36	7	590	22	16	10	2
4685	70	7	605	21	17	10	0
4686	68	8	647	14	18	10	0
4687	56	8	669	25	18	12	0
4688	65	8	685	24	18	12	0
4689	82	8	687	25	17	10	2
4690	120	8	687	25	17	10	2
4691	120	8	686	23	16	10	0
4692	92	7	564	18	12	8	1
4693	12	6	507	16	10	6	0
4694	91	6	507	16	10	6	0
4695	78	1	87	3	2	0	0
4696	95	2	131	5	5	1	0
4697	79	4	344	10	7	3	0
4698	85	4	344	11	7	5	0
4699	70	4	376	11	7	5	0
4700	86	4	379	11	7	5	0
4701	72	4	379	11	7	5	0
4702	105	4	361	11	7	4	0
4703	96	4	355	11	7	4	0
4704	73	4	360	11	7	4	0
4705	92	4	356	11	7	5	0
4706	101	4	356	11	7	5	0
4707	98	4	369	11	7	4	1
4708	80	5	382	12	8	5	0
4709	89	5	382	12	8	5	0
4710	88	5	400	13	8	5	0
4711	85	5	409	13	9	5	1
4712	80	5	431	14	9	6	0
4713	112	5	431	14	9	6	0
4714	114	5	433	14	9	6	0
4715	130	5	425	14	9	5	1
4716	109	5	425	14	9	5	1
4717	110	5	428	14	9	5	0
4718	91	5	428	14	9	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4719	128	5	419	13	9	5	0
4720	123	5	419	14	8	5	2
4721	72	5	419	14	8	5	2
4722	77	5	417	13	8	5	0
4723	89	5	398	13	8	4	0
4724	88	4	364	11	7	4	0
4725	118	4	364	11	7	4	0
4726	101	4	366	13	7	3	0
4727	83	4	364	12	7	3	0
4728	81	4	364	12	7	3	0
4729	65	4	365	8	7	4	0
4730	93	4	337	10	7	4	0
4731	99	4	344	10	7	3	0
4732	99	4	344	11	7	5	0
4733	77	4	316	5	4	3	0
4734	83	4	304	9	6	4	1
4735	74	4	316	9	7	2	0
4736	90	4	321	9	7	3	1
4737	90	4	316	9	7	2	0
4738	93	4	321	9	7	3	1
4739	99	3	220	7	5	3	1
4740	77	4	337	11	7	5	0
4741	103	4	337	11	7	5	0
4742	92	4	327	11	7	5	0
4743	106	4	327	11	7	5	0
4744	132	5	388	12	10	6	1
4745	68	5	388	12	10	6	0
4746	132	4	313	10	7	5	0
4747	150	4	327	10	8	5	0
4748	136	4	327	10	8	5	0
4749	143	4	327	10	8	5	0
4750	154	4	348	11	8	5	1
4751	154	4	348	11	8	5	1
4752	140	4	373	11	8	4	0
4753	155	4	373	11	8	4	0
4754	125	5	407	13	9	5	0
4755	141	5	445	14	10	5	0
4756	134	5	445	14	10	5	0
4757	121	6	535	16	12	6	0
4758	133	6	535	16	12	6	0
4759	138	11	921	29	21	10	0
4760	150	15	1307	42	29	13	0
4761	55	2	165	6	5	4	1
4762	6	2	159	6	5	3	1
4763	31	2	188	6	5	2	0
4764	36	2	198	7	5	2	0
4765	27	3	210	8	5	3	1
4766	20	3	208	8	6	3	1
4767	45	3	228	9	8	6	2
4768	30	3	230	9	8	5	2
4769	29	3	224	9	8	5	2
4770	26	3	258	10	9	6	2
4771	3	2	165	7	7	4	2
4772	3	2	130	5	5	4	2
4773	45	2	137	5	4	3	1
4774	12	2	155	6	4	3	1
4775	25	3	204	8	6	3	0
4776	25	3	202	8	6	4	0
4777	34	3	145	49	5	4	2
4778	4	2	137	5	5	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4779	10	4	316	13	10	6	1
4780	5	3	230	8	7	4	2
4781	4	2	184	6	5	4	1
4782	18	3	225	8	6	4	0
4783	17	3	225	8	5	3	0
4784	2	3	225	7	5	3	0
4785	102	3	220	7	5	2	0
4786	115	3	220	7	5	2	0
4787	146	2	209	6	4	1	0
4788	119	2	209	6	4	2	0
4789	123	2	209	6	4	2	0
4790	83	3	221	6	5	3	0
4791	140	3	221	6	5	3	0
4792	92	3	241	7	5	3	0
4793	109	3	241	7	5	3	0
4794	96	3	258	8	6	2	0
4795	98	3	284	9	6	4	0
4796	88	4	330	11	8	5	0
4797	122	4	330	11	8	5	0
4798	139	4	330	11	8	5	0
4799	108	4	333	11	8	4	0
4800	127	3	285	9	6	4	0
4801	105	3	285	9	6	4	0
4802	86	3	310	10	6	0	0
4803	112	3	310	10	6	0	0
4804	142	3	285	9	6	4	0
4805	107	3	285	9	6	4	0
4806	126	1	54	2	1	0	2
4807	119	4	371	12	8	5	2
4808	112	4	371	12	8	5	0
4809	125	5	394	13	9	6	0
4810	134	5	416	14	10	6	0
4811	100	5	434	14	10	6	2
4812	115	5	434	14	9	6	2
4813	167	5	432	14	9	5	0
4814	141	5	432	14	9	5	0
4815	205	5	403	13	8	6	0
4816	112	5	403	13	8	6	1
4817	157	4	371	11	8	3	1
4818	109	4	371	11	8	4	1
4819	128	4	364	11	8	4	0
4820	103	4	364	10	7	3	0
4821	89	4	364	10	7	4	0
4822	93	4	363	10	7	4	0
4823	112	4	363	11	7	5	0
4824	125	4	356	11	7	5	0
4825	106	4	356	11	7	5	1
4826	155	4	351	10	7	1	1
4827	153	4	356	10	7	1	1
4828	110	4	356	10	6	1	0
4829	159	4	356	10	6	1	0
4830	215	4	364	10	6	3	1
4831	165	4	364	10	6	3	1
4832	176	4	364	10	6	3	1
4833	170	4	366	10	7	5	0
4834	148	4	373	10	7	5	1
4835	240	4	379	10	7	5	1
4836	101	4	379	10	7	4	1
4837	120	5	390	10	7	4	1
4838	322	5	400	10	7	4	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4839	125	5	400	10	7	4	1
4840	207	5	400	10	7	4	1
4841	101	4	394	8	7	4	0
4842	192	4	394	8	7	4	0
4843	243	5	401	8	8	4	0
4844	280	5	407	8	8	4	0
4845	199	5	407	4	8	4	0
4846	199	5	437	10	8	5	0
4847	162	5	437	10	8	5	0
4848	141	5	437	10	8	5	0
4849	151	6	501	13	9	5	0
4850	177	6	501	13	9	5	0
4851	180	7	570	13	10	6	0
4852	172	7	570	13	10	6	0
4853	144	7	570	13	10	6	0
4854	187	8	690	18	12	6	0
4855	145	16	1380	39	27	12	2
4856	1	5	457	13	11	6	0
4857	126	5	457	13	11	6	0
4858	141	5	401	12	10	5	0
4859	111	5	401	12	10	6	0
4860	73	5	379	11	9	6	0
4861	96	4	362	11	8	4	0
4862	92	4	349	10	8	5	0
4863	115	4	349	10	8	5	0
4864	106	4	346	10	8	4	0
4865	94	4	348	10	8	4	1
4866	78	4	348	9	8	5	1
4867	75	4	359	11	8	5	0
4868	96	4	359	11	7	5	0
4869	105	4	359	11	7	5	0
4870	85	4	352	11	7	5	0
4871	85	4	338	11	7	5	0
4872	81	4	333	10	7	3	0
4873	124	4	341	10	7	5	0
4874	87	4	344	11	7	5	1
4875	95	4	344	11	7	2	1
4876	77	4	358	11	8	5	0
4877	79	4	363	11	8	5	1
4878	67	4	363	11	8	5	1
4879	83	4	363	11	8	5	0
4880	97	4	361	11	8	5	0
4881	78	4	363	11	8	5	1
4882	76	4	375	11	8	5	1
4883	89	5	383	12	8	4	2
4884	93	5	393	12	8	6	2
4885	71	5	394	11	8	6	0
4886	68	5	394	11	8	5	0
4887	55	5	392	11	8	5	0
4888	71	5	393	11	8	5	0
4889	54	4	388	11	8	1	0
4890	51	5	414	13	9	6	0
4891	45	5	457	13	9	6	0
4892	66	5	457	13	9	6	0
4893	67	6	490	14	10	5	1
4894	56	6	490	14	10	6	1
4895	53	5	466	13	9	6	0
4896	79	5	466	13	9	6	0
4897	96	5	453	13	9	6	0
4898	89	5	446	13	9	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4899	89	6	468	14	10	6	0
4900	78	6	506	15	11	6	0
4901	62	6	506	15	11	6	0
4902	93	6	533	16	11	7	0
4903	80	7	612	18	13	8	0
4904	112	7	612	18	13	8	0
4905	71	7	595	17	12	8	0
4906	123	7	605	17	13	7	0
4907	98	7	625	18	13	8	0
4908	114	7	625	18	13	8	0
4909	82	7	625	19	13	8	0
4910	59	7	606	19	13	8	0
4911	71	7	573	18	12	8	0
4912	119	7	573	18	12	8	0
4913	87	7	560	17	12	7	0
4914	68	7	553	17	12	7	0
4915	61	7	553	17	12	7	0
4916	62	6	523	13	12	6	0
4917	66	6	523	15	12	7	0
4918	66	6	517	15	12	7	2
4919	95	6	494	13	12	7	2
4920	54	5	462	13	11	6	0
4921	70	4	347	10	8	5	0
4922	61	5	400	10	9	7	0
4923	88	4	354	10	8	3	0
4924	52	4	306	8	7	3	1
4925	42	4	379	9	9	5	1
4926	70	4	379	9	9	5	0
4927	114	4	367	11	8	5	0
4928	77	3	257	6	6	3	0
4929	104	4	364	11	8	5	0
4930	86	6	516	16	13	7	0
4931	91	9	768	25	18	11	0
4932	63	9	768	25	18	11	0
4933	66	9	748	24	17	11	0
4934	83	7	606	20	15	8	0
4935	67	7	606	20	15	9	1
4936	60	7	603	18	14	9	1
4937	84	7	603	15	14	8	1
4938	84	8	716	17	16	9	1
4939	60	9	788	19	17	10	0
4940	81	9	788	19	17	10	0
4941	56	9	734	18	16	10	0
4942	45	7	557	14	12	7	1
4943	40	5	444	13	10	7	0
4944	43	5	392	10	9	5	1
4945	47	5	377	13	10	7	1
4946	55	1	47	3	2	2	0
4947	35	5	450	14	10	7	1
4948	46	5	365	13	10	7	1
4949	52	18	1536	48	31	17	2
4950	2	17	1371	50	38	23	1
4951	19	7	588	15	14	10	0
4952	57	6	523	15	12	8	0
4953	83	6	523	15	12	8	2
4954	81	6	507	15	11	7	2
4955	62	6	524	16	11	7	1
4956	49	6	547	12	12	7	1
4957	85	8	655	16	14	9	0
4958	24	8	674	16	15	10	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4959	72	8	726	17	16	10	0
4960	67	9	738	17	17	12	0
4961	62	9	765	18	18	12	2
4962	78	10	794	26	19	13	2
4963	78	10	807	26	19	13	0
4964	99	11	865	29	21	14	2
4965	68	11	866	30	23	15	2
4966	62	11	870	31	23	16	3
4967	62	11	870	31	23	16	3
4968	58	10	828	30	22	16	2
4969	62	10	798	29	22	16	1
4970	56	10	759	29	22	15	3
4971	48	9	752	30	22	16	0
4972	39	10	752	30	22	16	2
4973	45	9	714	27	21	15	2
4974	54	9	710	28	20	15	0
4975	83	9	700	28	21	14	2
4976	48	9	700	26	21	15	2
4977	25	9	676	27	20	15	2
4978	30	8	595	25	18	13	2
4979	26	7	557	20	16	11	2
4980	49	7	542	21	15	11	1
4981	38	7	542	21	15	11	2
4982	44	7	532	18	14	11	2
4983	48	7	555	20	14	10	1
4984	35	7	572	21	13	10	0
4985	44	7	603	21	14	10	2
4986	77	8	615	19	15	10	4
4987	85	7	618	19	14	10	0
4988	71	8	663	21	15	11	2
4989	40	8	670	21	15	11	2
4990	45	9	761	23	16	10	1
4991	58	11	939	29	20	11	2
4992	60	11	939	29	20	11	2
4993	47	9	744	22	15	10	1
4994	45	9	796	23	15	10	0
4995	43	9	808	23	16	10	1
4996	33	9	808	23	16	10	0
4997	61	9	765	24	15	11	0
4998	50	9	720	24	15	10	0
4999	35	9	787	25	18	12	1
5000	39	9	767	25	17	12	1
5001	104	9	745	23	17	11	0
5002	61	9	725	23	16	11	1
5003	31	9	722	23	16	11	1
5004	50	9	735	23	16	11	1
5005	34	9	735	23	16	11	0
5006	77	9	739	23	16	11	1
5007	54	8	707	22	16	11	0
5008	53	9	719	23	16	11	0
5009	60	9	719	23	16	11	0
5010	46	8	687	23	15	10	0
5011	55	8	647	22	14	10	0
5012	47	8	661	21	14	10	2
5013	48	8	655	20	14	10	2
5014	53	8	646	20	14	10	0
5015	64	7	630	20	13	10	0
5016	34	7	609	20	13	9	1
5017	33	7	593	19	13	9	1
5018	50	7	599	19	13	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5019	44	8	633	19	13	9	2
5020	35	8	633	19	13	9	2
5021	36	7	630	19	13	10	0
5022	36	8	664	21	14	10	1
5023	36	8	689	22	15	11	1
5024	37	7	620	20	13	9	2
5025	47	7	596	19	12	8	1
5026	31	6	543	17	10	7	0
5027	37	7	599	19	12	7	0
5028	54	8	663	19	12	8	0
5029	44	7	578	17	11	7	0
5030	38	6	541	15	10	7	0
5031	38	7	622	18	12	8	0
5032	42	8	643	19	13	8	0
5033	34	9	752	22	15	10	2
5034	41	9	757	23	15	10	0
5035	46	9	757	23	15	10	0
5036	44	10	869	26	17	10	0
5037	56	10	869	26	17	11	1
5038	44	10	842	26	16	11	1
5039	47	13	1112	37	23	13	0
RIO BRAVO Fm.							
5040	41	11	942	27	19	12	1
5041	34	11	929	26	18	12	0
5042	30	14	1165	34	24	14	0
5043	27	14	1165	34	24	14	0
5044	24	20	1698	52	32	16	0
5045	17	29	2453	90	51	26	7
5046	0	11	913	27	20	14	2
5047	79	10	877	26	18	14	0
5048	97	11	922	27	20	14	0
5049	106	11	922	27	20	14	0
5050	78	12	976	30	21	14	2
5051	83	12	989	30	22	15	2
5052	80	12	1022	31	23	15	2
5053	57	12	1027	31	23	14	2
5054	61	12	1027	31	23	14	2
5055	70	20	1676	52	37	25	2
5056	74	20	1676	52	37	25	3
5057	67	19	1560	50	36	24	5
5058	52	19	1541	48	34	22	5
5059	57	18	1541	48	34	22	2
5060	45	13	1093	35	24	16	2
5061	56	11	964	30	20	13	2
5062	60	11	905	27	19	12	0
5063	60	11	920	28	19	12	2
5064	64	12	1021	31	21	12	2
5065	67	12	1056	32	21	13	0
5066	58	13	1081	33	21	13	0
5067	54	14	1162	36	23	15	1
5068	79	15	1251	36	24	15	3
5069	91	15	1251	36	24	15	3
5070	73	16	1391	39	25	16	2
5071	63	16	1431	39	24	13	2
5072	62	21	1809	51	32	17	0
5073	63	21	1809	51	32	17	0
5074	63	21	1786	52	32	18	2
5075	7	12	1036	31	21	13	2
5076	77	12	1036	31	21	13	2
5077	111	13	1091	32	21	13	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5078	100	14	1187	34	23	14	2
5079	92	14	1187	34	23	14	2
5080	99	15	1250	36	24	14	2
5081	82	15	1314	37	25	15	2
5082	94	15	1314	37	25	15	2
5083	94	15	1268	35	23	14	2
5084	108	15	1268	35	23	14	2
5085	84	13	1127	31	20	13	1
5086	94	14	1238	31	22	14	0
5087	86	15	1328	33	22	14	2
5088	88	15	1328	33	22	14	2
5089	93	17	1522	38	25	15	1
5090	119	17	1522	38	25	15	1
5091	121	16	1405	35	23	14	2
5092	130	16	1405	35	23	14	2
5093	115	20	1742	37	28	15	2
5094	90	21	1883	45	30	18	2
5095	136	21	1883	45	30	18	2
5096	78	27	2260	71	47	27	5
5097	85	26	2200	70	45	22	3
5098	95	26	2220	70	45	23	3
5099	98	26	2255	71	46	23	4
5100	45	13	1172	7	18	5	6
5101	35	13	1172	7	18	5	6
5102	47	6	542	5	9	4	4
5103	50	5	427	4	7	3	4
5104	62	4	361	3	6	2	2
5105	51	4	320	7	6	3	2
5106	53	3	291	6	5	2	2
5107	52	3	232	5	5	2	3
5108	18	3	250	10	8	2	2
5109	51	6	513	16	11	6	4
5110	49	6	513	16	11	6	4
5111	72	10	787	29	19	9	5
5112	40	9	732	23	17	8	3
5113	38	8	678	18	16	7	2
5114	42	7	636	18	15	7	0
5115	71	0	36	0	0	0	0
5116	59	1	84	3	0	0	0
5117	41	2	176	6	4	2	1
5118	45	2	196	6	4	0	0
5119	69	3	243	8	4	2	1
5120	85	3	257	8	5	0	0
5121	26	5	456	13	9	6	3
5122	22	5	438	14	8	4	0
5123	27	4	381	11	7	2	0
5124	32	4	351	10	6	3	0
5125	29	4	329	10	6	1	0
5126	38	4	344	10	7	2	0
5127	29	4	388	11	7	2	0
5128	32	4	367	11	7	3	0
5129	35	3	271	8	5	4	0
5130	27	3	215	7	4	2	2
5131	30	2	195	6	4	3	0
5132	28	2	175	6	4	0	0
5133	27	3	228	8	5	2	0
5134	54	10	838	30	20	8	2
5135	89	7	594	21	14	6	2
5136	147	7	594	21	14	6	2
5137	162	7	594	21	14	6	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5138	203	5	459	17	11	5	0
5139	172	5	459	17	11	5	0
5140	191	5	393	13	9	4	0
5141	198	5	393	13	9	4	0
5142	246	5	393	13	9	4	0
5143	200	5	407	13	8	3	0
5144	240	5	420	13	8	2	0
5145	216	5	420	13	8	2	0
5146	226	5	420	13	8	2	0
5147	206	6	549	14	10	3	0
5148	197	6	549	14	10	3	0
5149	231	6	549	14	10	3	0
5150	220	9	797	20	14	6	0
5151	200	9	797	20	14	6	0
5152	194	9	797	20	14	6	0
5153	194	9	797	20	14	6	0
5154	189	9	797	20	14	6	0
5155	173	9	797	20	14	6	0
5156	200	8	696	24	13	7	1
5157	158	10	862	23	15	7	2
5158	215	9	797	20	14	6	0
5159	239	9	797	20	14	6	0
5160	240	8	696	24	13	7	1
5161	222	10	862	23	15	7	2
5162	230	9	797	20	14	6	0
5163	226	9	797	20	14	6	0
5164	224	8	696	24	13	7	1
5165	177	10	862	23	15	7	2
5166	211	14	1201	34	22	9	1
5167	123	18	1565	42	27	10	1
5168	167	18	1595	42	27	10	2
5169	181	18	1595	38	25	9	2
5170	150	10	862	23	15	7	2
5171	164	9	797	20	14	6	0
5172	159	9	797	20	14	6	0
5173	122	8	696	24	13	7	1
5174	180	10	862	23	15	7	2
5175	80	5	422	13	8	3	0
5176	102	5	422	13	8	3	0
5177	122	16	1426	39	23	9	2
5178	164	16	1426	39	23	9	2
5179	124	44	3865	110	67	27	9
5180	100	4	354	14	11	6	2
5181	125	8	652	26	20	11	2
5182	114	9	756	29	22	12	2
5183	190	11	861	32	24	12	2
5184	212	5	400	15	11	7	2
5185	155	5	376	15	11	6	2
5186	225	5	376	15	11	6	2
5187	179	5	391	15	11	6	0
5188	152	5	391	15	11	6	0
5189	179	6	516	19	14	6	2
5190	100	6	516	19	14	6	2
5191	158	7	577	24	14	7	2
5192	176	7	577	24	14	7	0
5193	161	7	577	24	14	7	0
5194	158	8	704	27	16	9	0
5195	192	8	704	27	16	9	0
5196	169	9	792	27	18	9	0
5197	150	9	792	26	18	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5198	155	11	901	31	20	9	0
5199	154	11	901	31	20	9	0
5200	160	11	901	31	20	9	0
5201	197	13	1142	37	23	10	2
5202	208	13	1142	37	23	10	2
5203	194	13	1142	37	23	10	2
5204	250	17	1464	47	29	12	2
5205	189	17	1464	47	29	12	2
5206	186	17	1464	47	29	12	2
5207	164	20	1718	57	34	14	2
5208	155	20	1718	57	34	14	2
5209	162	22	1851	64	38	15	3
5210	147	22	1851	64	38	15	3
5211	162	22	1851	64	38	15	3
5212	185	23	1994	72	41	16	0
5213	180	23	1994	72	41	16	0
5214	175	23	1994	72	41	16	0
5215	144	25	2107	74	45	18	0
5216	162	26	2220	80	47	20	5
5217	123	26	2220	80	47	20	5
5218	186	26	2220	80	47	20	5
5219	231	26	2220	80	47	20	5
5220	183	24	2059	74	47	19	0
5221	175	24	2059	74	47	19	0
5222	265	24	2059	74	47	19	0
5223	249	23	1902	70	44	20	3
5224	181	23	1902	70	44	20	3
5225	204	23	1902	70	44	20	3
5226	181	20	1706	63	40	18	2
5227	200	20	1706	63	40	18	2
5228	204	20	1706	63	40	18	2
5229	192	22	1842	66	42	18	2
5230	195	22	1842	66	42	18	2
5231	194	22	1842	66	42	18	2
5232	204	24	2079	67	45	20	2
5233	231	24	2079	67	45	20	2
5234	249	24	2079	67	45	20	2
5235	207	24	2079	67	45	20	2
5236	249	30	2603	72	46	21	3
5237	250	16	1398	34	25	11	2
5238	200	22	1948	45	32	13	0
5239	213	22	1948	45	32	13	0
5240	175	22	1933	45	31	13	0
5241	175	22	1918	45	31	13	0
5242	175	21	1903	45	31	13	0
5243	175	21	1889	45	31	12	0
5244	175	21	1874	45	30	12	0
5245	175	21	1859	45	30	12	0
5246	197	21	1859	45	30	12	0
5247	130	21	1864	46	30	13	1
5248	117	21	1869	46	30	13	2
5249	138	21	1869	46	30	13	2
5250	155	21	1869	46	30	13	2
5251	155	21	1869	46	30	13	2
5252	155	21	1869	46	30	13	2
5253	155	21	1869	46	30	13	2
5254	155	21	1869	46	30	13	2
5255	155	21	1869	46	30	13	2
5256	94	20	1715	54	28	14	0
5257	111	20	1715	54	28	14	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5258	127	20	1715	54	28	14	0
5259	144	20	1715	54	28	14	0
5260	154	20	1715	54	28	14	0
5261	154	20	1715	54	28	14	0
5262	154	20	1715	54	28	14	0
5263	154	20	1715	54	28	14	0
5264	154	20	1715	54	28	14	0
5265	134	22	1936	56	33	16	3
5266	158	22	1936	56	33	16	3
5267	150	22	1936	56	33	16	3
5268	150	22	1936	56	33	16	3
5269	150	22	1936	56	33	16	3
5270	150	22	1936	56	33	16	3
5271	150	32	2941	51	36	14	3
5272	135	32	2941	51	36	14	3
5273	161	34	3134	54	39	16	4
5274	153	37	3327	58	42	17	4
5275	153	39	3519	62	45	18	4
5276	140	41	3712	65	48	19	5
5277	140	43	3905	69	51	20	5
5278	127	43	3905	69	51	20	5
5279	127	43	3905	69	51	20	5
5280	114	43	3905	69	51	20	5
5281	114	43	3905	69	51	20	5
5282	133	43	3905	69	51	20	5
5283	141	36	3226	59	45	19	2
5284	150	31	2771	50	37	16	1
5285	173	31	2771	50	37	16	1
5286	180	37	3426	56	39	15	2
5287	137	37	3426	56	39	15	2
5288	176	37	3426	56	39	15	2
5289	164	38	3457	57	40	16	2
5290	156	38	3457	57	40	16	2
5291	149	56	5195	82	56	20	2
5292	154	56	5195	82	56	20	2
5293	139	69	6383	95	63	22	6
5294	155	69	6383	95	63	22	6
5295	147	60	5597	66	56	19	0
5296	129	60	5597	66	56	19	0
5297	151	60	5597	66	56	19	0
5298	168	46	4318	54	46	17	3
5299	163	46	4318	54	46	17	3
5300	150	54	4987	70	53	19	2
5301	100	54	4987	70	53	19	2
5302	95	45	4164	59	46	18	0
5303	127	41	3800	53	42	16	2
5304	150	36	3328	49	38	15	0
5305	188	36	3328	49	38	15	0
5306	157	36	3328	49	38	15	0
5307	166	20	1764	44	32	15	3
5308	114	20	1764	44	32	15	3
5309	161	20	1718	43	32	15	3
5310	173	20	1718	43	32	15	3
5311	152	24	2132	47	34	16	2
5312	148	24	2132	47	34	16	2
5313	132	24	2132	47	34	16	2
5314	150	34	3039	57	42	18	0
5315	124	34	3039	57	42	18	0
5316	177	43	3940	76	51	21	3
5317	181	43	3940	76	51	21	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5318	162	46	4200	83	55	22	0
5319	220	46	4200	83	55	22	0
5320	169	46	4200	83	55	22	0
5321	186	35	3108	76	48	24	3
5322	170	35	3108	76	48	24	3
5323	179	35	3108	76	48	24	3
5324	185	54	4958	95	63	26	1
5325	215	54	4958	95	63	26	1
5326	164	54	4958	95	63	26	1
5327	195	56	5084	82	66	25	5
5328	197	56	5084	82	66	25	5
5329	232	56	5084	82	66	25	5
5330	168	56	5084	82	66	25	5
5331	180	53	4850	92	64	25	3
5332	176	53	4850	92	64	25	3
5333	227	52	4785	79	64	25	0
5334	169	52	4785	79	64	25	0
5335	128	52	4785	79	64	25	0
5336	184	52	4785	79	64	25	0
5337	173	64	5845	110	76	29	5
5338	173	64	5845	110	76	29	5
5339	169	68	6208	103	83	32	1
5340	155	68	6208	103	83	32	1
5341	165	68	6208	103	83	32	1
5342	168	52	4658	94	65	25	3
5343	174	52	4658	94	65	25	3
5344	169	52	4658	94	65	25	3
5345	183	46	4209	74	60	23	0
5346	142	46	4209	74	60	23	0
5347	197	46	4209	74	60	23	0
5348	173	45	4086	86	57	23	1
5349	206	45	4086	86	57	23	1
5350	175	49	4437	80	64	25	0
5351	121	49	4437	80	64	25	0
5352	183	52	4658	94	65	25	3
5353	149	52	4658	94	65	25	3
5354	143	46	4209	74	60	23	0
5355	141	46	4209	74	60	23	0
5356	165	46	4209	74	60	23	0
5357	139	45	4086	86	57	23	1
5358	132	45	4086	86	57	23	1
5359	174	49	4437	80	64	25	0
5360	137	49	4437	80	64	25	0
5361	141	44	3960	89	58	22	2
5362	94	44	3960	89	58	22	2
5363	136	44	3960	89	58	22	2
5364	138	52	4692	101	66	25	5
5365	139	52	4692	101	66	25	5
5366	125	50	4486	97	64	24	5
5367	123	48	4279	94	62	24	4
5368	114	155	14565	178	137	42	8
5369	165	263	24850	262	213	61	11
5370	140	44	4000	67	48	18	0
5371	146	44	4000	67	48	18	0
5372	235	21	1840	41	31	14	2
5373	226	21	1744	44	38	21	4
5374	67	14	1202	32	28	16	4
5375	52	11	913	24	22	13	2
5376	40	11	942	23	19	11	3
5377	49	12	1003	24	19	10	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5378	43	11	954	24	18	12	3
5379	58	11	954	22	18	12	2
5380	53	10	865	22	18	11	3
5381	65	10	865	25	18	10	3
5382	45	11	898	26	19	11	1
5383	41	11	966	29	21	12	2
5384	41	12	982	29	21	12	1
5385	39	12	982	29	21	12	4
5386	45	12	974	29	22	12	4
5387	63	11	952	30	22	13	2
5388	41	11	921	30	22	13	0
5389	47	11	901	31	22	12	3
5390	42	11	908	29	23	12	4
5391	69	19	1655	52	34	15	3
5392	68	19	1655	52	34	15	3
5393	70	16	1325	40	28	13	3
5394	91	15	1297	38	26	13	2
5395	98	15	1297	38	26	13	3
5396	167	14	1168	34	25	12	3
5397	149	14	1168	34	25	12	3
5398	176	13	1132	33	24	11	1
5399	188	13	1132	33	24	11	1
5400	192	13	1132	33	24	11	1
5401	164	15	1357	32	26	12	0
5402	197	18	1555	35	28	13	2
5403	146	20	1754	38	30	14	4
5404	192	20	1766	39	30	14	4
5405	175	20	1777	40	30	14	4
5406	203	20	1777	40	30	13	0
5407	61	19	1635	38	28	13	2
5408	63	18	1615	38	28	13	2
5409	44	17	1448	36	26	12	1
5410	76	16	1383	32	25	12	2
5411	180	16	1383	32	25	12	2
5412	179	16	1426	33	25	12	2
5413	164	16	1426	33	25	11	2
5414	119	16	1426	33	25	11	2
5415	216	17	1536	36	25	11	2
5416	249	17	1536	36	25	11	0
5417	224	17	1536	36	25	11	0
5418	220	17	1536	36	25	11	0
5419	196	19	1613	51	27	14	2
5420	219	19	1613	51	27	14	2
5421	208	19	1613	51	27	14	2
5422	205	27	2439	67	34	16	0
5423	220	27	2439	67	34	16	0
5424	195	27	2439	67	34	16	0
5425	218	30	2650	67	35	16	4
5426	120	30	2650	58	35	15	4
5427	155	30	2650	58	35	15	4
5428	255	30	2650	58	35	15	4
5429	212	24	2191	48	32	12	1
5430	171	24	2191	48	32	12	1
5431	149	20	1834	42	28	11	0
5432	168	21	1834	43	28	11	1
5433	127	22	1997	46	30	14	2
5434	155	24	2160	49	32	16	2
5435	140	30	2650	58	35	15	4
5436	131	24	2191	48	32	12	1
5437	141	24	2191	48	32	12	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5438	136	20	1834	42	28	11	0
5439	182	21	1834	43	28	11	1
5440	140	22	1997	46	30	14	2
5441	153	24	2160	49	32	16	2
5442	141	11	992	25	19	9	2
5443	173	11	992	25	19	9	2
5444	193	11	992	25	19	9	2
5445	223	23	2080	48	34	15	2
5446	230	23	2080	48	34	15	2
5447	191	23	2080	48	34	15	2
5448	255	21	1860	51	28	15	2
5449	211	21	1860	51	28	15	2
5450	219	21	1860	51	28	15	2
5451	202	21	1860	51	28	15	2
5452	168	31	2756	55	39	16	2
5453	176	31	2756	55	39	16	2
5454	296	31	2756	55	39	16	2
5455	187	39	3471	78	53	21	3
5456	246	39	3471	78	53	21	3
5457	275	39	3471	78	53	21	3
5458	281	44	3916	87	59	23	1
5459	202	44	3916	87	59	23	1
5460	186	44	3916	87	59	23	1
5461	243	44	3968	88	60	23	2
5462	280	45	4019	90	60	24	2
5463	169	45	4019	90	60	24	4
5464	146	20	1719	39	34	18	1
5465	92	20	1719	39	34	18	1
5466	176	20	1719	39	34	18	1
5467	223	27	2329	54	49	26	2
5468	124	27	2329	54	49	26	2
5469	129	25	2153	48	40	22	1
5470	118	25	2153	48	40	22	1
5471	118	23	2040	36	34	17	2
5472	137	23	2040	36	34	17	2
5473	125	22	1941	38	29	15	0
5474	137	22	1941	38	29	15	0
5475	159	18	1631	27	24	11	2
5476	221	18	1631	27	24	11	2
5477	145	18	1631	27	24	11	2
5478	144	19	1736	33	25	12	2
5479	165	19	1736	33	25	12	2
5480	160	21	1927	39	27	12	3
5481	176	21	1927	39	27	12	3
5482	177	21	1927	39	27	12	3
5483	176	21	1881	33	27	12	0
5484	194	21	1881	33	27	12	0
5485	231	10	888	18	13	6	0
5486	219	10	888	18	13	6	0
5487	220	10	888	18	13	6	0
5488	185	10	888	18	13	6	0
5489	168	6	546	13	9	4	0
5490	201	6	546	13	9	4	0
5491	192	6	546	13	9	4	0
5492	194	6	537	14	9	3	0
5493	198	6	537	14	9	3	0
5494	187	4	396	12	7	0	0
5495	177	4	396	12	7	0	0
5496	146	6	517	13	9	3	0
5497	172	6	517	13	9	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5498	197	6	517	13	9	3	0
5499	158	15	1355	32	23	10	2
5500	167	15	1355	32	23	10	2
5501	144	15	1355	32	23	10	2
5502	180	21	1836	45	31	14	5
5503	176	21	1836	45	31	14	5
5504	161	22	1896	46	33	15	2
5505	137	22	1896	46	33	15	2
5506	166	21	1805	44	33	15	2
5507	167	21	1805	44	33	15	2
5508	101	20	1738	45	32	15	1
5509	120	20	1738	45	32	15	1
5510	147	19	1656	49	31	15	1
5511	148	19	1656	49	31	15	1
5512	215	19	1656	49	31	15	1
5513	179	19	1625	50	33	15	2
5514	179	19	1625	50	33	15	2
5515	152	19	1625	50	33	15	2
5516	137	19	1625	50	33	15	2
5517	180	21	1815	51	38	18	3
5518	171	21	1815	51	38	18	3
5519	169	23	1998	64	42	19	4
5520	159	23	1998	64	42	19	4
5521	159	23	1998	64	42	19	4
5522	181	23	1980	61	40	19	0
5523	155	23	1980	61	40	19	0
5524	155	23	1980	61	40	19	0
5525	197	25	2179	57	42	19	3
5526	172	25	2179	57	42	19	3
5527	170	25	2169	62	41	18	2
5528	162	25	2169	62	41	18	2
5529	152	22	1905	47	36	17	2
5530	185	22	1905	47	36	17	2
5531	78	20	1748	45	34	16	2
5532	164	20	1748	45	34	16	2
5533	127	20	1706	46	33	16	2
5534	115	20	1706	46	33	16	2
5535	185	20	1706	46	33	16	2
5536	135	25	2169	62	41	18	2
5537	152	22	1905	47	36	17	2
5538	170	22	1905	47	36	17	2
5539	136	20	1748	45	34	16	2
5540	201	20	1748	45	34	16	2
5541	131	20	1706	46	33	16	2
5542	137	20	1706	46	33	16	2
5543	129	20	1706	46	33	16	2
5544	132	18	1541	47	34	15	0
5545	122	18	1541	47	34	15	0
5546	146	19	1679	51	35	15	0
5547	90	19	1679	51	35	15	0
5548	124	19	1679	51	35	15	0
5549	145	20	1700	52	36	14	0
5550	142	20	1752	54	37	15	1
5551	171	20	1752	54	37	15	1
5552	140	20	1752	54	37	15	1
5553	185	19	1634	50	34	14	2
5554	111	19	1634	50	34	14	2
5555	140	19	1642	50	34	14	2
5556	141	19	1651	51	35	14	2
5557	125	63	5769	112	61	25	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5558	137	8	668	21	16	9	2
5559	202	7	601	20	16	9	1
5560	180	8	652	23	17	10	1
5561	127	8	652	23	17	10	0
5562	223	8	652	23	17	10	0
5563	192	14	1118	37	32	18	4
5564	49	8	629	22	18	11	4
5565	48	7	553	18	15	10	2
5566	48	8	648	20	16	10	0
5567	48	11	912	24	19	11	2
5568	43	7	560	18	16	10	2
5569	48	7	571	18	15	10	3
5570	41	8	687	20	17	10	3
5571	43	9	781	23	18	10	3
5572	51	9	781	24	18	11	3
5573	54	10	799	25	19	11	0
5574	35	10	799	25	19	11	1
5575	56	10	797	26	20	11	2
5576	43	10	876	27	21	11	3
5577	46	11	881	26	21	12	3
5578	30	10	808	24	20	11	0
5579	25	10	804	24	19	11	3
5580	30	12	1002	32	24	14	2
5581	34	12	1002	32	24	14	2
5582	34	17	1465	48	33	15	2
5583	38	12	1009	35	25	12	0
5584	30	14	1154	37	28	13	0
5585	170	14	1154	37	28	13	0
5586	180	14	1154	37	28	13	0
5587	167	15	1261	37	27	14	4
5588	178	15	1261	37	27	14	4
5589	105	17	1440	37	27	14	4
5590	117	18	1594	40	30	15	3
5591	163	17	1440	36	27	13	2
5592	106	20	1748	43	33	16	1
5593	140	20	1748	43	33	16	1
5594	148	22	1951	49	38	19	0
5595	141	22	1951	49	38	19	0
5596	141	22	1942	49	38	18	2
5597	133	22	1942	49	38	18	2
5598	155	22	1942	49	38	18	2
5599	148	26	2244	53	42	21	4
5600	169	26	2244	53	42	21	4
5601	159	26	2244	53	42	21	4
5602	165	34	2988	63	48	23	4
5603	163	34	2988	63	48	23	4
5604	210	34	2988	63	48	23	4
5605	175	29	2630	50	38	17	1
5606	123	29	2630	50	38	17	1
5607	157	30	2662	52	40	19	3
5608	172	30	2662	52	40	19	3
5609	195	29	2551	53	41	19	4
5610	207	29	2551	53	41	19	4
5611	207	26	2244	53	42	21	4
5612	201	26	2244	53	42	21	4
5613	229	26	2244	53	42	21	4
5614	266	34	2988	63	48	23	4
5615	239	34	2988	63	48	23	4
5616	208	34	2988	63	48	23	4
5617	187	29	2630	50	38	17	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5618	249	29	2630	50	38	17	1
5619	159	30	2662	52	40	19	3
5620	141	30	2662	52	40	19	3
5621	169	29	2551	53	41	19	4
5622	197	29	2551	53	41	19	4
5623	235	41	3360	111	97	49	11
5624	202	41	3360	111	97	49	11
5625	258	41	3360	111	97	49	11
5626	285	81	6714	221	181	87	18
5627	208	81	6714	221	181	87	18
5628	235	81	6714	221	181	87	18
5629	210	81	6714	221	181	87	18
5630	252	81	6714	221	181	87	18
5631	202	102	8426	278	229	108	23
5632	232	102	8426	278	229	108	23
5633	310	102	8426	278	229	108	23
5634	280	113	9446	296	243	114	22
5635	223	113	9446	296	243	114	22
5636	310	113	9446	296	243	114	22
5637	276	130	11076	308	252	120	24
5638	266	130	11076	308	252	120	24
5639	318	130	11076	308	252	120	24
5640	195	130	11076	308	252	120	24
5641	268	119	10267	259	211	99	20
5642	254	119	10267	259	211	99	20
5643	241	119	10267	259	211	99	20
5644	244	119	10267	259	211	99	20
5645	231	102	8853	212	172	81	17
5646	213	102	8853	212	172	81	17
5647	259	102	8853	212	172	81	17
5648	178	92	8048	186	148	68	15
5649	236	92	8048	186	148	68	15
5650	300	92	8048	186	148	68	15
5650	230	92	8048	186	148	68	15
5651	253	93	8155	187	149	69	15
5652	239	94	8261	188	149	69	14
5653	232	132	11428	286	228	106	21
5654	200	16	1363	37	32	19	1
5655	218	21	1803	47	40	23	3
5656	199	21	1803	47	40	23	3
5657	132	43	3587	103	91	51	11
5658	193	43	3587	103	91	51	11
5659	159	43	3587	103	91	51	11
5660	168	67	5514	177	156	88	4
5661	166	67	5514	177	156	88	4
5662	163	68	5514	185	156	88	19
5663	193	53	4118	185	123	86	19
5664	212	53	4118	185	123	86	19
5665	178	56	4367	201	129	88	19
5666	166	56	4367	201	129	88	19
5667	150	81	6548	244	172	101	21
5668	166	81	6548	244	172	101	21
5669	166	81	6548	244	172	101	21
5670	176	111	8965	319	268	133	27
5671	197	111	8965	319	268	133	27
5672	182	111	8965	319	268	133	27
5673	200	147	11565	513	392	194	40
5674	214	147	11565	513	392	194	40
5675	224	214	16352	802	623	312	64
5676	136	214	16352	802	623	312	64

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5677	213	214	16352	802	623	312	64
5678	161	327	24292	1300	1033	528	110
5679	168	327	24292	1300	1033	528	110
5680	164	327	24292	1300	1033	528	110
5681	187	480	34845	1984	1621	852	180
5682	204	480	34845	1984	1621	852	180
5683	250	480	34845	1984	1621	852	180
5684	250	480	34845	1984	1621	852	180
5685	218	527	37836	2196	1828	986	214
5686	211	527	37836	2196	1828	986	214
5687	198	527	37836	2196	1828	986	214
5688	195	361	26114	1473	1224	662	145
5689	217	361	26114	1473	1224	662	145
5690	191	361	26114	1473	1224	662	145
5691	203	361	26114	1473	1224	662	145
5692	187	213	15734	763	695	374	83
5693	197	213	15734	763	695	374	83
5694	227	176	13135	624	563	302	65
5695	177	140	10535	486	430	230	47
5696	186	140	10535	486	430	230	47
5697	237	140	10535	486	430	230	47
5698	214	113	8719	376	330	176	34
5699	217	113	8719	376	330	176	34
5700	159	113	8719	376	330	176	35
5701	147	112	8712	366	318	168	35
5702	183	112	8712	366	318	168	35
5703	166	153	11813	509	444	230	46
5704	200	153	11813	509	444	230	46
5705	247	153	11813	509	444	230	46
5706	138	252	18979	969	766	392	81
5707	186	252	18979	969	766	392	81
5708	176	252	18979	969	766	392	81
5709	201	399	29472	1590	1296	675	138
5710	178	399	29472	1590	1296	675	138
5711	210	399	29472	1590	1296	675	138
5712	166	476	34640	1932	1608	857	177
5713	138	476	34640	1932	1608	857	177
5714	203	476	34640	1932	1608	857	177
5715	203	476	34640	1932	1608	857	177
5716	150	415	30201	1675	1396	751	156
5717	178	415	30201	1675	1396	751	156
5718	159	276	20381	996	905	488	103
5719	121	276	20381	996	905	488	103
5720	173	149	10510	663	493	321	64
5721	156	149	10510	663	493	321	64
5722	172	149	10510	663	493	321	64
5723	249	143	10798	529	412	247	50
5724	227	143	10798	529	412	247	50
5725	205	143	10798	529	412	247	50
5726	235	147	11292	515	416	233	45
5727	251	147	11292	515	416	233	45
5728	160	147	11292	515	416	233	45
5729	173	196	14946	678	591	301	64
5730	160	196	14946	678	591	301	64
5731	182	196	14946	678	591	301	64
5732	164	220	16634	780	685	348	74
5733	138	220	16634	780	685	348	74
5734	223	237	17784	852	752	381	81
5735	155	237	17784	852	752	381	81
5736	182	237	17784	852	752	381	81

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5737	180	232	17393	839	743	376	79
5738	138	232	17393	839	743	376	79
5739	163	220	16634	780	685	348	74
5740	155	220	16634	780	685	348	74
5741	141	237	17784	852	752	381	81
5742	155	237	17784	852	752	381	81
5743	148	237	17784	852	752	381	81
5744	217	232	17393	839	743	376	79
5745	182	232	17393	839	743	376	79
5746	134	169	13081	605	474	234	48
5747	67	54	3602	194	205	151	39
5748	156	50	3273	180	193	146	38
5749	113	56	3693	208	216	165	43
5750	186	63	4112	236	238	184	49
5751	57	63	4112	236	238	184	49
5752	62	70	4450	264	278	224	62
5753	58	66	4298	245	248	196	55
5754	146	66	4298	245	248	196	55
5755	160	66	4298	245	248	196	55
5756	121	58	3921	199	215	165	45
5757	126	58	3921	199	215	165	45
5758	90	57	3915	208	197	148	40
5759	89	55	3795	181	189	144	39
5760	118	54	3676	195	186	142	38
5761	108	51	3455	173	182	142	40
5762	133	51	3455	173	182	142	40
5763	134	45	3024	155	160	127	32
5764	166	21	1250	90	71	76	21
5765	137	21	1250	90	71	76	21
5766	144	21	1250	90	71	76	21
5767	132	12	850	42	35	34	2
5768	66	11	797	31	30	23	8
5769	82	11	797	31	30	23	8
5770	14	64	4973	158	152	114	31
5771	129	66	5105	163	158	122	36
5772	114	66	5105	163	158	122	36
5773	117	63	4934	154	150	116	35
5774	77	73	5843	164	153	115	32
5775	136	70	5625	160	150	112	31
5776	121	70	5625	160	150	112	31
5777	115	61	4821	151	143	109	30
5778	91	57	4450	146	138	105	31
5779	140	57	4450	146	138	105	31
5780	114	53	4042	140	132	103	30
5781	81	52	4008	138	129	100	29
5782	74	49	3705	131	122	96	29
5783	63	46	3504	124	117	94	28
5784	233	46	3504	124	117	94	28
5785	143	44	3382	118	112	89	27
5786	102	44	3382	118	112	89	27
5787	126	45	3424	118	111	89	28
5788	122	46	3596	119	109	86	26
5789	208	46	3596	119	109	86	26
5790	187	45	3482	118	106	83	25
5791	101	45	3482	118	106	83	25
5792	189	46	3554	121	108	85	25
5793	229	46	3554	121	108	85	25
5794	243	46	3554	121	108	85	25
5795	261	46	3554	121	108	85	25
5796	146	47	3699	109	111	77	24

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5797	183	47	3699	109	111	77	24
5798	138	50	3898	132	116	82	24
5799	93	50	3898	132	116	82	24
5800	190	47	3724	126	108	76	22
5801	134	47	3665	130	109	77	23
5802	108	46	3606	134	109	78	24
5803	130	46	3606	134	109	78	24
5804	114	45	3441	132	108	78	25
5805	135	46	3554	121	108	85	25
5806	113	46	3554	121	108	85	25
5807	141	47	3699	109	111	77	24
5808	128	47	3699	109	111	77	24
5809	140	26	2006	72	66	51	18
5810	157	26	2006	72	66	51	18
5811	156	30	2322	84	71	56	18
5812	156	30	2322	84	71	56	18
5813	169	30	2322	84	71	56	18
5814	158	26	2006	72	66	51	18
5815	180	26	2006	72	66	51	18
5816	211	26	2006	72	66	51	18
5817	515	26	2006	72	66	51	18
5818	216	30	2322	84	71	56	18
5819	258	30	2322	84	71	56	18
5820	219	30	2322	84	71	56	18
5821	240	30	2322	84	71	56	18
5822	227	39	3034	108	89	72	25
5823	254	39	3034	108	89	72	25
5824	239	39	3034	108	89	72	25
5825	308	39	3034	108	89	73	25
5826	219	30	2136	98	72	73	24
5827	279	30	2176	98	72	73	24
5828	191	30	2216	98	72	73	24
5829	156	29	2216	83	67	62	19
5830	172	29	2216	83	67	62	19
5831	129	37	2965	91	82	62	21
5832	246	37	2965	91	82	62	21
5833	241	37	2965	91	82	62	21
5834	192	37	2965	91	82	62	21
5835	235	48	3892	106	94	71	25
5836	243	48	3892	106	94	71	25
5837	227	48	3892	106	94	71	25
5838	234	77	6480	155	134	88	27
5839	166	77	6480	155	134	88	27
5840	147	97	8287	162	170	106	31
5841	144	97	8287	164	170	106	31
5842	147	78	6538	164	145	95	28
5843	2	20	1386	59	58	58	23
5844	160	19	1295	50	54	56	20
5845	211	19	1295	50	54	56	20
5846	93	29	2099	79	77	66	23
5847	175	29	2099	79	77	66	23
5848	168	42	3197	119	110	81	26
5849	205	42	3197	119	110	81	26
5850	191	42	3197	119	110	81	26
5851	111	45	3381	120	113	88	29
5852	153	45	3381	120	113	88	29
5853	187	52	3960	126	125	103	36
5854	215	52	3960	126	125	103	36
5855	210	52	3960	126	125	103	36
5856	167	50	3904	115	110	89	30

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5857	160	50	3904	115	110	89	30
5858	187	55	4435	130	121	87	27
5859	278	55	4435	130	121	87	27
5860	248	55	4435	130	121	87	27
5861	213	62	5016	152	137	93	29
5862	270	70	5597	173	153	100	30
5863	74	89	7229	222	193	117	31
5864	160	89	7229	222	193	117	31
5865	201	89	7229	222	193	117	31
5866	227	89	7229	222	193	117	31
5867	217	87	7119	216	184	112	32
5868	232	87	7119	216	184	112	32
5869	256	87	7119	216	184	112	32
5870	196	75	6179	176	148	93	27
5871	248	75	6179	176	148	93	27
5872	203	75	6179	176	148	93	27
5873	197	75	6179	176	148	93	27
5874	186	78	6471	184	152	92	26
5875	240	78	6471	184	152	92	26
5876	252	78	6471	184	152	92	26
5877	223	73	6131	169	138	85	23
5878	221	73	6131	169	138	85	23
5879	205	73	6131	169	138	85	23
5880	192	73	6131	169	138	85	23
5881	132	59	4866	148	100	74	21
5882	112	59	4866	148	100	74	21
5883	88	58	4908	132	94	65	19
5884	111	58	4864	127	99	62	19
5885	133	58	4864	127	99	62	19
5886	180	58	4864	127	99	62	19
5887	192	55	4649	122	99	63	19
5888	251	55	4649	122	99	63	19
5889	233	55	4649	122	99	63	19
5890	295	55	4649	122	99	63	19
5891	227	75	6223	182	151	88	24
5892	270	95	7797	242	202	112	29
5893	270	95	7797	242	202	112	29
5894	278	95	7797	242	202	112	29
5895	267	242	18000	892	750	410	96
5896	275	388	28203	1543	1298	707	164
5897	271	388	28203	1543	1298	707	164
5898	280	388	28203	1543	1298	707	164
5899	311	388	28203	1543	1298	707	164
5900	202	711	49252	3030	2647	1515	356
5901	209	711	49252	3030	2647	1515	356
5902	244	711	49252	3030	2647	1515	356
5903	232	546	37586	2330	2050	1201	281
5904	221	546	37586	2330	2050	1201	281
5905	146	546	37586	2330	2050	1201	281
5906	287	546	37586	2330	2050	1201	281
5907	193	294	20544	1236	1069	618	147
5908	248	294	20544	1236	1069	618	147
5909	175	95	7797	242	202	112	29
5910	190	95	7797	242	202	112	29
5911	223	95	7797	242	202	112	29
5912	249	55	4649	122	99	63	19
5913	205	55	4649	122	99	63	19
5914	251	55	4649	122	99	63	19
5915	244	47	3857	123	100	59	17
5916	213	47	3857	123	100	59	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5917	242	25	2047	63	51	29	9
5918	221	25	2047	63	51	29	9
5919	226	25	2047	63	51	29	9
5920	210	29	2266	81	72	45	16
5921	239	29	2266	81	72	45	16
5922	226	29	2266	81	72	45	16
5923	248	29	2266	81	72	45	16
5924	203	47	3857	123	100	59	17
5925	296	47	3857	123	100	59	17
5926	208	25	2047	63	51	29	9
5927	164	43	3585	103	82	47	17
5928	152	49	4123	114	94	55	17
5929	90	49	4123	114	94	55	17
5930	121	54	4456	132	111	62	20
5931	107	64	5123	174	149	82	24
5932	92	64	5123	174	149	82	24
5933	136	69	5483	189	166	92	25
5934	184	69	5483	189	166	92	25
5935	203	69	5483	189	166	92	25
5936	198	48	3809	129	113	63	19
5937	168	47	3724	126	108	76	22
5938	66	47	3665	130	109	77	23
5939	246	46	3606	134	109	78	24
5940	56	46	3606	134	109	78	24
5941	52	45	3441	132	108	78	25
5942	59	46	3554	121	108	85	25
5943	69	46	3554	121	108	85	25
5944	110	30	2322	84	71	56	18
5945	156	30	2322	84	71	56	18
5946	119	39	3034	108	89	72	25
5947	122	39	3034	108	89	72	25
5948	157	39	3034	108	89	72	25
5949	163	39	3034	108	89	73	25
5950	224	30	2136	98	72	73	24
5951	170	30	2176	98	72	73	24
5952	163	30	2216	98	72	73	24
5953	133	29	2216	83	67	62	19
5954	121	29	2216	83	67	62	19
5955	194	0	0	0	0	0	0
5956	178	0	0	0	0	0	0
5957	216	0	0	0	0	0	0
5958	166	0	0	0	0	0	0
5959	225	0	0	0	0	0	0
5960	204	0	0	0	0	0	0
5961	160	0	0	0	0	0	0
5962	239	0	0	0	0	0	0
5963	194	0	0	0	0	0	0
5964	223	0	0	0	0	0	0
5965	177	0	0	0	0	0	0
5966	166	0	0	0	0	0	0
5967	158	0	0	0	0	0	0
5968	186	0	0	0	0	0	0
5969	43	0	0	0	0	0	0
5970	39	0	0	0	0	0	0
5971	39	0	0	0	0	0	0
5972	40	0	0	0	0	0	0
5973	17	0	0	0	0	0	0
5974	50	0	0	0	0	0	0
5975	64	0	0	0	0	0	0
5976	73	0	0	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5977	77	0	0	0	0	0	0
5978	82	9	674	27	26	23	9
5979	178	9	674	27	26	23	9
5980	76	8	560	23	21	19	1
5981	152	8	560	23	21	19	1
5982	177	7	480	19	16	15	6
5983	245	7	480	19	16	15	6
5984	262	7	480	19	16	15	6
5985	228	7	504	19	17	15	6
5986	187	6	504	18	17	13	0
5987	239	6	504	18	17	13	0
5988	219	8	586	21	18	15	6
5989	145	8	586	21	18	15	6
5990	170	10	748	27	24	18	6
5991	131	9	748	27	24	18	0
5992	97	9	748	27	24	18	0
5993	136	16	1218	43	36	28	11
5994	128	16	1218	43	36	28	11
5995	107	17	1284	43	36	28	12
5996	164	16	1284	42	36	28	12
5997	115	16	1284	42	36	28	12
5998	115	12	914	31	25	19	9
5999	125	17	1347	43	35	26	12
6000	108	17	1347	43	35	26	12
6001	119	13	1095	35	27	20	0
6002	104	20	1689	48	37	24	11
6003	102	29	2426	66	48	31	13
6004	112	21	1639	66	39	31	13
6005	119	16	1289	42	34	26	11
6006	91	17	1346	42	35	26	12
6007	69	18	1404	43	36	26	12
6008	97	18	1404	43	36	26	12
6009	110	18	1404	43	36	26	12
6010	122	18	1404	43	36	26	12
6011	90	18	1404	43	36	26	12
6012	121	16	1240	41	34	25	11
6013	171	16	1240	41	34	25	11
6014	157	16	1289	42	34	26	11
6015	181	16	1289	42	34	26	11
6016	315	16	1289	42	34	26	11
6017	270	17	1346	42	35	26	12
6018	296	18	1404	43	36	26	12
6019	357	18	1404	43	36	26	12
6020	308	18	1404	43	36	26	12
6021	323	18	1404	43	36	26	12
6022	147	18	1404	43	36	26	12
6023	278	20	1569	47	38	26	14
6024	186	20	1569	47	38	26	14
6025	170	20	1596	48	39	27	14
6026	241	20	1624	49	39	28	14
6027	265	20	1624	49	39	28	13
6028	260	20	1624	49	39	28	13
6029	216	20	1624	50	40	29	13
6030	207	25	2049	66	50	32	13
6031	230	30	2474	82	60	35	14
6032	240	9	629	26	23	22	11
6033	157	12	938	32	28	23	11
6034	265	12	938	32	28	23	11
6035	235	12	938	32	28	23	11
6036	269	16	1265	41	35	26	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6037	227	16	1265	41	35	26	12
6038	275	16	1265	41	35	26	12
6039	261	16	1265	41	35	26	12
6040	212	12	898	30	27	20	9
6041	250	12	898	30	27	20	9
6042	202	22	1681	58	50	34	16
6043	121	22	1681	58	50	34	16
6044	144	22	1681	58	50	34	16
6045	171	16	1175	60	37	31	14
6046	160	16	1175	60	37	31	14
6047	170	16	1175	60	37	31	14
6048	161	16	1162	59	35	28	12
6049	181	16	1162	59	35	28	12
6050	116	17	1364	46	32	21	3
6051	128	17	1364	46	32	21	3
6052	130	7	549	18	14	8	2
6053	132	7	549	18	14	8	2
6054	144	4	349	12	9	5	2
6055	157	4	349	12	9	5	2
6056	157	4	349	12	9	5	2
6057	162	13	1061	33	25	14	6
6058	150	13	1061	33	25	14	6
6059	133	21	1714	53	40	23	9
6060	122	21	1714	53	40	23	9
6061	99	31	2532	84	66	37	12
6062	141	31	2532	84	66	37	12
6063	144	43	3404	124	100	55	17
6064	113	43	3404	124	100	55	17
6065	140	39	3089	113	92	52	15
6066	110	33	2617	92	74	43	14
6067	113	33	2617	92	74	43	14
6068	145	27	2164	72	56	33	13
6069	158	27	2164	72	56	33	13
6070	143	27	2164	72	56	33	13
6071	157	25	2028	66	49	28	10
6072	173	25	2028	66	49	28	10
6073	165	25	2027	65	48	27	10
6074	145	25	2027	65	48	27	10
6075	165	25	2027	65	48	27	10
6076	150	24	1968	64	46	26	5
6077	119	24	1968	64	46	26	5
6078	190	22	1777	56	42	22	10
6079	155	22	1777	56	42	22	10
6080	182	22	1777	56	42	22	10
6081	167	20	1705	53	40	23	0
6082	141	20	1705	53	40	23	0
6083	149	21	1751	57	41	23	9
6084	151	21	1751	57	41	23	9
6085	141	23	1905	60	44	24	10
6086	160	23	1905	60	44	24	10
6087	123	23	1883	58	42	24	10
6088	144	23	1883	58	42	24	10
6089	83	20	1704	52	39	23	2
6090	78	17	1397	43	32	20	0
6091	88	17	1397	43	32	20	0
6092	107	17	1418	42	30	19	7
6093	117	17	1418	42	30	19	7
6094	148	17	1458	45	30	20	0
6095	93	20	1743	42	35	21	0
6096	105	20	1743	42	35	21	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6097	146	20	1743	42	35	21	0
6098	136	26	2191	61	46	25	0
6099	133	26	2191	61	46	25	0
6100	181	27	2277	63	46	26	10
6101	180	27	2277	63	46	26	10
6102	234	27	2277	63	46	26	10
6103	240	27	2277	63	46	26	10
6104	117	27	2239	64	46	25	9
6105	138	27	2239	64	46	25	9
6106	178	27	2318	69	48	25	0
6107	225	27	2318	69	48	25	0
6108	140	27	2318	69	48	25	0
6109	207	27	2280	70	49	25	9
6110	191	27	2280	70	49	25	9
6111	165	20	1704	52	39	23	2
6112	166	17	1397	43	32	20	0
6113	186	17	1397	43	32	20	0
6114	208	17	1418	42	30	19	7
6115	118	17	1418	42	30	19	7
6116	178	17	1458	45	30	20	0
6117	151	20	1743	42	35	21	0
6118	156	20	1743	42	35	21	0
6119	180	20	1743	42	35	21	0
6120	154	17	1458	45	30	20	0
6121	188	30	2519	76	52	26	11
6122	205	30	2519	76	52	26	11
6123	231	30	2519	76	52	26	11
6124	166	32	2719	81	55	27	11
6125	157	32	2719	81	55	27	0
6126	173	33	2831	88	59	28	5
6127	136	35	2943	96	64	29	11
6128	182	8	581	25	24	22	11
6129	124	6	458	17	15	14	1
6130	76	8	603	21	17	14	7
6131	63	11	868	23	20	14	4
6132	56	12	1006	26	21	15	8
6133	54	11	848	24	20	15	8
6134	28	8	536	29	19	18	9
6135	57	11	849	31	24	17	0
6136	76	11	878	30	24	17	8
6137	67	12	910	31	25	18	9
6138	56	14	1091	37	28	18	8
6139	80	14	1091	37	28	18	8
6140	79	14	1147	37	28	17	9
6141	49	15	1235	40	31	18	2
6142	49	13	1086	37	30	17	3
6143	67	14	1151	40	31	17	8
6144	88	15	1246	43	33	17	1
6145	86	17	1354	46	35	17	7
6146	73	16	1346	46	34	18	2
6147	80	16	1346	46	34	18	2
6148	85	17	1359	45	35	17	8
6149	55	17	1365	46	34	18	8
6150	65	16	1359	46	34	17	1
6151	87	16	1344	46	34	17	1
6152	68	15	1229	41	31	16	7
6153	74	19	1550	54	38	17	6
6154	272	15	1149	56	34	20	7
6155	226	15	1149	56	34	20	7
6156	214	15	1149	56	34	20	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6157	161	11	882	44	27	17	6
6158	160	11	882	44	27	17	6
6159	130	15	1213	46	32	19	6
6160	182	15	1213	46	32	19	6
6161	130	16	1295	44	33	17	5
6162	119	16	1295	44	33	17	5
6163	113	18	1490	49	36	18	6
6164	142	18	1490	49	36	18	6
6165	132	18	1490	49	36	18	6
6166	79	18	1534	49	36	18	7
6167	149	18	1534	49	36	18	7
6168	107	19	1589	50	36	19	6
6169	146	19	1589	50	36	19	6
6170	148	18	1524	45	32	17	8
6171	161	18	1524	45	32	17	8
6172	150	18	1551	44	32	16	8
6173	134	18	1551	44	32	16	8
6174	158	18	1552	43	30	16	4
6175	177	18	1552	43	30	16	4
6176	148	18	1552	43	30	16	4
6177	150	16	1348	38	27	14	2
6178	139	16	1348	38	27	14	2
6179	187	16	1327	35	26	15	6
6180	134	16	1327	35	26	15	6
6181	194	15	1271	34	24	14	2
6182	206	15	1271	34	24	14	2
6183	123	15	1271	34	24	14	2
6184	158	15	1292	35	25	14	4
6185	157	15	1292	35	25	14	4
6186	166	15	1292	35	25	14	4
6187	140	16	1330	36	25	14	6
6188	137	16	1330	36	25	14	6
6189	133	17	1416	38	26	14	5
6190	150	17	1416	38	26	14	5
6191	141	18	1531	41	29	16	0
6192	151	18	1531	41	29	16	0
6193	159	19	1647	45	30	16	6
6194	156	19	1647	45	30	16	6
6195	135	23	1954	63	42	21	4
6196	138	23	1954	63	42	21	4
6197	161	23	1954	63	42	21	4
6198	190	30	2452	79	62	32	9
6199	90	29	2317	93	62	36	10
6200	166	29	2317	93	62	36	10
6201	162	29	2317	93	62	36	10
6202	188	27	2198	78	56	30	8
6203	130	22	1867	61	42	21	8
6204	141	22	1823	56	39	19	7
6205	134	22	1823	56	39	19	7
6206	179	20	1641	55	39	20	3
6207	200	20	1641	55	39	20	3
6208	165	18	1531	41	29	16	0
6209	165	18	1531	41	29	16	0
6210	161	17	1416	38	26	14	5
6211	115	17	1416	38	26	14	5
6212	188	16	1330	36	25	14	6
6213	142	20	1641	55	39	20	3
6214	159	20	1641	55	39	20	3
6215	153	22	1867	61	42	21	8
6216	161	22	1867	61	42	21	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6217	176	22	1823	56	39	19	7
6218	157	22	1823	56	39	19	7
6219	156	13	1091	34	25	11	0
6220	157	13	1091	34	25	11	0
6221	137	13	1091	34	25	11	0
6222	136	9	741	23	17	8	1
6223	111	11	911	26	20	10	1
6224	72	4	328	12	10	4	2
6225	150	5	416	15	12	8	2
6226	162	5	416	15	12	8	2
6227	182	5	416	15	12	8	2
6228	191	10	807	31	27	16	0
6229	144	10	807	31	27	16	0
6230	189	10	807	31	27	16	0
6231	179	11	852	32	27	16	0
6232	166	11	852	32	27	16	0
6233	95	9	755	27	22	12	0
6234	79	9	755	27	22	12	0
6235	89	8	685	21	17	10	3
6236	110	8	673	20	16	9	3
6237	155	8	662	20	15	8	3
6238	147	11	922	26	19	9	4
6239	123	11	922	26	19	9	4
6240	208	11	922	26	19	9	4
6241	174	15	1314	33	25	12	4
6242	136	15	1314	33	25	12	3
6243	147	16	1374	33	25	12	3
6244	163	16	1374	33	24	12	2
6245	211	16	1374	33	24	12	2
6246	162	16	1374	33	24	12	2
6247	199	15	1328	31	21	11	0
6248	203	17	1516	35	25	12	0
6249	119	17	1516	35	25	12	0
6250	136	17	1516	35	25	12	0
6251	145	17	1516	35	26	13	1
6252	147	17	1484	35	26	13	1
6253	152	17	1510	36	26	13	1
6254	190	17	1536	37	27	13	1
6255	177	17	1536	37	27	13	0
6256	139	17	1452	33	25	13	1
6257	121	17	1452	33	25	13	1
6258	114	15	1331	31	22	11	0
6259	116	15	1331	31	22	11	0
6260	128	16	1451	34	24	12	2
6261	156	16	1451	34	24	12	2
6262	180	16	1451	34	24	12	2
6263	165	17	1481	36	26	13	3
6264	289	17	1481	36	26	13	3
6265	113	17	1481	36	26	13	3
6266	160	22	1810	59	40	23	2
6267	191	22	1810	59	40	23	2
6268	243	23	1906	59	44	23	1
6269	156	24	2002	60	48	24	0
6270	200	24	2002	60	48	24	0
6271	191	25	2084	60	48	24	3
6272	157	25	2084	60	48	24	3
6273	247	25	2084	60	48	24	3
6274	216	22	1897	52	42	20	3
6275	174	22	1897	52	42	20	3
6276	207	17	1516	35	25	12	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6277	194	17	1516	35	25	12	0
6278	219	17	1516	35	25	12	0
6279	179	17	1516	35	26	13	1
6280	186	17	1484	35	26	13	1
6281	214	17	1510	36	26	13	1
6282	254	17	1536	37	27	13	1
6283	223	17	1536	37	27	13	0
6284	266	17	1452	33	25	13	1
6285	167	17	1452	33	25	13	1
6286	239	9	781	24	20	11	1
6287	257	9	781	24	20	11	1
6288	252	9	781	24	20	11	1
6289	251	9	781	24	20	11	1
6290	316	26	2170	64	49	24	6
6291	271	42	3560	103	79	37	11
6292	301	46	3944	113	84	39	11
6293	207	46	3944	113	84	39	10
6294	218	46	3944	113	84	39	9
6295	212	46	3944	113	84	39	9
6296	314	47	4062	114	84	39	10
6297	288	49	4181	116	85	40	10
6298	228	49	4181	116	85	40	10
6299	239	49	4181	116	85	40	10
6300	245	49	4181	116	85	40	10
6301	145	48	4145	101	80	38	10
6302	259	48	4145	104	80	38	10
6303	232	47	4024	104	77	37	10
6304	292	45	3904	104	74	36	10
6305	243	45	3904	104	74	36	10
6306	217	40	3448	95	66	33	4
6307	190	40	3448	95	66	33	4
6308	149	40	3448	95	66	33	9
6309	188	34	2902	92	57	33	9
6310	267	34	2902	92	57	33	9
6311	199	34	2902	92	57	33	9
6312	161	36	3060	86	61	29	8
6313	210	36	3060	86	61	29	8
6314	274	36	3060	86	61	29	8
6315	230	62	5271	161	107	58	15
6316	315	89	7482	237	154	87	22
6317	163	12	959	31	26	18	2
6318	140	14	1112	33	28	18	5
6319	103	15	1234	37	30	19	6
6320	135	15	1234	37	30	19	6
6321	180	29	2438	62	50	29	10
6322	82	29	2438	62	50	29	10
6323	150	52	4585	100	78	42	12
6324	154	52	4585	100	78	42	12
6325	227	72	6446	131	93	45	12
6326	168	72	6446	131	93	45	12
6327	114	72	6446	131	93	45	12
6328	167	72	6446	131	93	45	12
6329	219	71	6355	127	89	42	10
6330	157	71	6355	127	89	42	10
6331	52	53	4710	101	71	34	4
6332	107	34	3006	70	51	26	2
6333	181	34	3006	70	51	26	2
6334	143	12	1088	28	20	10	0
6335	192	12	1088	28	20	10	0
6336	180	12	1088	28	20	10	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6337	215	4	304	9	6	3	0
6338	167	4	304	9	6	3	0
6339	220	4	304	9	6	3	0
6340	189	3	233	7	5	1	0
6341	188	3	233	7	5	1	0
6342	223	8	651	29	16	11	0
6343	122	8	651	29	16	11	0
6344	154	20	1564	74	40	28	9
6345	142	20	1564	74	40	28	9
6346	205	20	1564	74	40	28	9
6347	60	114	9175	384	274	126	29
6348	157	114	9175	384	274	126	29
6349	179	171	13485	611	441	219	46
6350	251	229	17795	837	609	312	63
6351	246	229	17795	837	609	312	63
6352	184	333	25511	1203	977	484	99
6353	239	333	25511	1203	977	484	99
6354	220	333	25511	1203	977	484	99
6355	203	333	25511	1203	977	484	99
6356	216	333	25511	1203	977	484	99
6357	173	302	22924	1200	885	439	90
6358	147	215	16548	785	625	309	64
6359	206	215	16548	785	625	309	64
6360	231	215	16548	785	625	309	64
6361	194	215	16548	785	625	309	64
6362	238	144	11235	490	394	194	38
6363	191	144	11235	490	394	194	38
6364	215	98	7738	324	254	126	25
6365	206	98	7738	324	254	126	25
6366	260	98	7738	324	254	126	25
6367	255	71	5715	224	173	87	18
6368	182	71	5715	224	173	87	18
6369	260	71	5715	224	173	87	18
6370	245	71	5715	224	173	87	18
6371	297	71	5713	223	170	84	18
6372	274	71	5712	223	168	81	17
6373	360	71	5712	223	168	81	17
6374	269	73	5916	230	171	82	18
6375	303	75	6121	237	174	84	18
6376	273	75	6121	237	174	84	18
6377	263	80	6596	242	177	84	18
6378	200	85	7071	246	180	84	18
6379	127	91	7588	252	180	84	20
6380	141	71	5715	224	173	87	18
6381	257	71	5715	224	173	87	18
6382	255	71	5715	224	173	87	18
6383	206	71	5715	224	173	87	18
6384	119	56	4479	204	120	70	15
6385	126	56	4479	204	120	70	15
6386	190	41	3329	121	90	45	11
6387	250	20	1665	60	45	22	6
6388	211	41	3329	121	90	45	11
6389	242	41	3329	121	90	45	11
6390	264	56	4479	204	120	70	15
6391	129	56	4479	204	120	70	15
6392	204	56	4479	204	120	70	15
6393	176	68	5599	204	130	70	15
6394	142	67	5599	184	130	60	14
6395	176	67	5599	184	130	60	14
6396	193	67	5599	184	130	60	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6397	200	58	4863	160	112	52	13
6398	208	58	4863	160	112	52	13
6399	238	55	4626	157	109	51	13
6400	241	53	4388	154	107	49	12
6401	186	53	4388	154	107	49	12
6402	211	53	4388	154	107	49	12
6403	191	52	4296	150	105	48	12
6404	214	52	4296	150	105	48	12
6405	190	52	4296	150	105	48	12
6406	168	47	3889	139	96	44	10
6407	188	47	3889	139	96	44	10
6408	166	42	3446	124	86	40	10
6409	54	42	3446	124	86	40	10
6410	251	41	3395	123	86	40	8
6411	168	41	3395	123	86	40	9
6412	110	40	3289	121	84	39	9
6413	154	95	7933	286	194	83	17
6414	31	22	1623	80	69	44	9
6415	58	22	1570	74	68	44	11
6416	106	22	1570	74	68	44	11
6417	108	24	1730	85	74	49	15
6418	76	31	2238	107	103	71	20
6419	85	36	2624	117	110	75	21
6420	92	36	2624	117	110	75	21
6421	90	34	2623	104	93	62	18
6422	82	32	2539	91	77	49	14
6423	84	30	2329	85	72	46	14
6424	93	30	2329	85	72	46	14
6425	78	27	2102	81	67	43	13
6426	115	26	1975	83	63	41	14
6427	81	22	1681	78	53	42	12
6428	83	22	1681	78	53	42	12
6429	90	25	1932	79	58	42	14
6430	90	29	2267	83	66	40	13
6431	105	29	2267	83	66	40	13
6432	68	29	2275	84	65	39	12
6433	77	28	2252	81	63	39	12
6434	86	27	2181	79	60	37	11
6435	72	29	2305	81	62	38	10
6436	92	29	2305	81	62	38	10
6437	116	28	2357	80	60	36	1
6438	13	36	2976	100	68	38	11
6439	237	37	3040	107	72	40	12
6440	250	37	3040	107	72	40	12
6441	177	37	3040	107	72	40	12
6442	233	36	2973	105	73	40	11
6443	229	36	2973	105	73	40	11
6444	187	36	2973	105	73	40	11
6445	227	36	2973	105	73	40	11
6446	291	39	3276	107	76	41	10
6447	239	39	3276	107	76	41	10
6448	284	39	3276	107	76	41	10
6449	231	39	3276	107	76	41	10
6450	257	44	3771	113	76	39	1
6451	250	44	3771	113	76	39	1
6452	268	44	3771	113	76	39	1
6453	205	46	3920	115	77	39	6
6454	266	48	4070	118	78	40	10
6455	262	48	4070	118	78	40	10
6456	294	48	4070	118	78	40	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6457	281	52	4520	134	88	44	0
6458	260	52	4520	134	88	44	0
6459	251	52	4520	134	88	44	0
6460	276	52	4520	134	88	44	0
6461	210	62	5308	165	106	53	0
6462	179	62	5308	165	106	53	0
6463	218	62	5308	165	106	53	0
6464	217	64	5464	168	109	56	14
6465	236	64	5464	168	109	56	14
6466	141	53	4459	157	91	57	13
6467	175	53	4459	157	91	57	13
6468	196	53	4459	157	91	57	13
6469	200	51	4288	143	92	54	14
6470	211	51	4288	143	92	54	14
6471	175	51	4288	143	92	54	14
6472	167	49	4150	127	90	49	13
6473	227	49	4150	127	90	49	13
6474	228	49	4150	127	90	49	13
6475	176	48	4070	118	78	40	10
6476	232	48	4070	118	78	40	10
6477	279	52	4520	134	88	44	0
6478	247	52	4520	134	88	44	0
6479	272	52	4520	134	88	44	0
6480	271	52	4520	134	88	44	0
6481	184	62	5308	165	106	53	0
6482	100	62	5308	165	106	53	0
6483	235	62	5308	165	106	53	0
6484	199	64	5464	168	109	56	14
6485	217	64	5464	168	109	56	14
6486	263	115	9414	331	251	126	28
6487	286	115	9414	331	251	126	28
6488	149	118	9629	349	259	128	27
6489	183	118	9629	349	259	128	27
6490	223	118	9629	349	259	128	27
6491	257	118	9629	349	259	128	27
6492	237	146	11946	426	319	160	37
6493	277	146	11946	426	319	160	37
6494	167	146	11946	426	319	160	37
6495	238	135	11250	360	269	137	32
6496	222	135	11250	360	269	137	32
6497	155	135	11250	360	269	137	32
6498	154	132	11174	340	247	126	29
6499	145	132	11174	340	247	126	29
6500	112	121	10198	311	226	120	29
6501	126	105	8751	281	208	113	28
6502	94	105	8751	281	208	113	28
6503	114	105	8751	281	208	113	28
6504	116	29	2412	84	64	35	7
6505	146	16	1221	58	37	28	7
6506	103	16	1221	58	37	28	7
6507	153	19	1550	54	40	24	2
6508	208	19	1550	54	40	24	2
6509	181	95	7913	261	186	93	24
6510	79	49	4115	134	96	48	12
6511	162	64	5464	168	109	56	14
6512	181	53	4459	157	91	57	13
6513	157	53	4459	157	91	57	13
6514	114	53	4459	157	91	57	13
6515	245	51	4288	143	92	54	14
6516	121	51	4288	143	92	54	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6517	93	51	4288	143	92	54	14
6518	98	49	4150	127	90	49	13
6519	110	49	4150	127	90	49	13
6520	171	49	4150	127	90	49	13
6521	161	48	4070	118	78	40	10
6522	172	48	4070	118	78	40	10
6523	126	52	4520	134	88	44	0
6524	104	52	4520	134	88	44	0
6525	90	52	4520	134	88	44	0
6526	124	52	4520	134	88	44	0
6527	164	62	5308	165	106	53	0
6528	212	62	5308	165	106	53	0
6529	169	62	5308	165	106	53	0
6530	230	64	5464	168	109	56	14
6531	148	64	5464	168	109	56	14
6532	155	51	4288	143	92	54	14
6533	258	51	4288	143	92	54	14
6534	188	51	4288	143	92	54	14
6535	167	44	3771	113	76	39	1
6536	183	44	3771	113	76	39	1
6537	174	44	3771	113	76	39	1
6538	162	46	3920	115	77	39	6
6539	159	48	4070	118	78	40	10
6540	139	48	4070	118	78	40	10
6541	175	48	4070	118	78	40	10
6542	158	52	4520	134	88	44	0
6543	238	52	4520	134	88	44	0
6544	175	52	4520	134	88	44	0
6545	221	52	4520	134	88	44	0
6546	243	62	5308	165	106	53	0
6547	156	62	5308	165	106	53	0
6548	175	62	5308	165	106	53	0
6549	166	64	5464	168	109	56	14
6550	166	64	5464	168	109	56	14
6551	159	37	3159	97	71	41	0
6552	196	37	3159	97	71	41	0
6553	193	47	3899	119	88	51	14
6554	211	47	3899	119	88	51	14
6555	240	35	2951	89	66	39	11
6556	144	35	2951	89	66	39	11
6557	101	45	3796	112	82	48	14
6558	127	45	3796	112	82	48	14
6559	193	37	3159	97	71	41	0
6560	225	37	3159	97	71	41	0
6561	236	47	3899	119	88	51	14
6562	177	47	3899	119	88	51	14
6563	197	35	2951	89	66	39	11
6564	145	35	2951	89	66	39	11
6565	184	45	3796	112	82	48	14
6566	238	42	3430	111	85	50	16
6567	194	42	3430	111	85	50	16
6568	176	42	3430	111	85	50	16
6569	217	42	3430	111	85	50	16
6570	97	51	4308	127	93	52	14
6571	137	49	4132	122	91	51	15
6572	139	49	4132	122	91	51	15
6573	162	37	3159	97	71	41	0
6574	105	37	3159	97	71	41	0
6575	168	37	3159	97	71	41	0
6576	135	47	3899	119	88	51	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6577	146	47	3899	119	88	51	14
6578	151	35	2951	89	66	39	11
6579	172	35	2951	89	66	39	11
6580	178	45	3796	112	82	48	14
6581	208	45	3796	112	82	48	14
6582	127	30	2457	78	61	40	12
6583	208	30	2457	78	61	40	12
6584	179	30	2457	78	61	40	12
6585	157	30	2457	78	61	40	12
6586	179	20	1621	54	43	29	9
6587	157	20	1621	54	43	29	9
6588	243	20	1615	52	43	28	2
6589	122	20	1615	52	43	28	2
6590	164	21	1650	54	44	30	10
6591	177	21	1650	54	44	30	10
6592	164	21	1650	54	44	30	10
6593	144	21	1650	54	44	30	10
6594	119	20	1621	54	43	29	9
6595	174	20	1621	54	43	29	9
6596	205	20	1615	52	43	28	2
6597	195	20	1615	52	43	28	2
6598	87	30	2457	78	61	40	12
6599	112	30	2457	78	61	40	12
6600	1	74	6124	187	146	82	21
6601	207	117	9791	297	232	125	30
6602	32	17	1373	48	39	25	2
6603	194	17	1373	48	39	25	2
6604	106	13	1058	39	32	21	4
6605	114	10	742	30	25	17	6
6606	92	9	640	25	22	16	6
6607	67	8	631	25	22	16	7
6608	127	8	631	25	22	16	7
6609	123	8	621	24	21	15	3
6610	153	8	649	26	22	16	3
6611	117	9	678	28	22	18	3
6612	140	9	678	28	22	18	3
6613	167	10	793	32	25	20	3
6614	104	10	793	32	25	20	3
6615	151	10	793	32	25	20	3
6616	167	10	782	26	23	16	3
6617	139	10	782	26	23	16	3
6618	132	8	655	25	18	14	1
6619	165	8	674	25	18	14	3
6620	140	8	674	24	17	12	3
6621	232	8	674	24	17	12	3
6622	173	10	814	29	20	13	2
6623	189	10	814	29	20	13	2
6624	187	10	814	29	20	13	2
6625	198	11	929	35	24	14	1
6626	227	11	929	35	24	14	1
6627	237	11	929	35	24	14	1
6628	204	12	944	35	26	14	1
6629	182	12	944	35	26	14	1
6630	173	12	944	35	26	15	3
6631	163	12	940	35	25	15	3
6632	206	12	940	35	25	15	3
6633	184	13	1023	39	26	16	3
6634	204	13	1023	39	26	16	2
6635	189	13	1023	39	26	16	2
6636	206	13	1036	39	26	16	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6637	180	13	1036	36	26	15	4
6638	199	13	1036	36	26	15	4
6639	231	18	1467	50	35	20	4
6640	259	23	1897	65	43	25	4
6641	239	23	1897	65	43	25	2
6642	221	26	2111	71	48	28	9
6643	268	26	2111	71	48	28	9
6644	294	26	2111	71	48	28	9
6645	128	22	1795	58	42	25	9
6646	230	22	1795	58	42	25	9
6647	136	22	1795	58	42	25	9
6648	208	21	1705	58	40	25	7
6649	147	21	1705	58	40	25	7
6650	129	18	1526	53	35	23	2
6651	163	18	1526	53	35	23	2
6652	200	19	1547	53	36	23	8
6653	225	19	1547	50	36	23	8
6654	191	19	1547	50	36	23	8
6655	210	22	1841	59	43	27	10
6656	246	22	1841	59	43	27	10
6657	177	23	1913	61	44	28	10
6658	224	24	1984	62	45	29	11
6659	199	24	1984	62	45	29	11
6660	267	24	1984	62	45	29	11
6661	229	24	1984	62	45	29	11
6662	225	31	2603	82	59	36	12
6663	190	31	2603	82	59	36	12
6664	270	31	2603	82	59	36	12
6665	218	33	2768	91	61	38	12
6666	236	33	2768	91	61	38	12
6667	197	34	2838	94	61	39	13
6668	76	34	2838	94	61	39	13
6669	134	34	2838	94	61	39	14
6670	105	32	2620	90	56	38	14
6671	232	29	2401	87	51	38	14
6672	266	36	2982	86	60	37	15
6673	255	36	2982	86	60	37	15
6674	291	36	2982	86	60	37	15
6675	214	36	2982	89	60	37	15
6676	166	35	2903	89	54	37	13
6677	150	36	3059	89	57	37	13
6678	115	35	3059	86	57	37	0
6679	113	35	2990	84	57	36	13
6680	121	35	2990	84	57	37	14
6681	167	37	3107	80	59	40	13
6682	112	0	2	0	0	0	0
6683	115	0	0	0	0	0	0
6684	105	0	23	0	0	0	0
6685	137	0	23	0	0	0	0
6686	126	25	2092	56	43	30	3
6687	124	25	2092	56	43	30	3
6688	107	34	2854	76	55	39	14
6689	160	34	2854	76	55	39	14
6690	125	37	3062	84	60	42	16
6691	66	37	3062	84	60	42	16
6692	129	37	3062	89	60	46	16
6693	192	34	2793	89	56	46	16
6694	171	187	15129	551	429	218	55
6695	50	20	1453	59	53	44	19
6696	55	12	864	34	30	28	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6697	53	14	1049	33	28	25	11
6698	47	13	1049	29	26	22	10
6699	24	13	1016	28	25	22	10
6700	37	16	1269	35	27	22	10
6701	31	17	1446	39	28	22	10
6702	33	17	1352	42	30	25	11
6703	25	17	1314	42	31	26	13
6704	71	16	1236	40	31	26	13
6705	89	16	1233	40	31	26	13
6706	87	15	1183	37	29	25	12
6707	77	16	1244	39	29	25	12
6708	72	16	1244	39	29	25	12
6709	66	15	1227	38	29	23	12
6710	58	15	1154	38	28	27	12
6711	15	15	1199	38	30	27	12
6712	67	15	1143	35	29	25	12
6713	33	15	1199	38	30	26	12
6714	79	16	1222	39	31	26	12
6715	66	18	1423	45	36	30	13
6716	43	19	1503	47	38	31	14
6717	64	20	1606	51	42	33	14
6718	46	20	1606	51	42	33	0
6719	159	23	1833	55	44	34	15
6720	156	23	1833	55	44	34	15
6721	173	24	1900	59	44	34	15
6722	190	23	1900	59	44	33	12
6723	146	24	1968	60	45	34	15
6724	152	24	1968	60	45	34	15
6725	160	24	1968	61	45	34	15
6726	154	24	1933	61	44	34	13
6727	111	24	1933	61	44	34	13
6728	168	24	1933	61	44	34	13
6729	162	22	1771	57	41	30	12
6730	105	21	1743	54	37	29	12
6731	137	24	2030	59	37	30	13
6732	126	24	2030	59	36	30	13
6733	108	24	2030	59	36	30	13
6734	163	32	2718	71	43	29	12
6735	164	32	2718	71	43	29	12
6736	171	35	3041	79	45	30	12
6737	164	35	3041	79	45	30	11
6738	155	35	3041	79	45	30	11
6739	160	33	2820	75	43	27	11
6740	206	33	2820	75	43	27	11
6741	137	27	2297	64	38	24	10
6742	129	27	2327	64	39	26	10
6743	108	27	2327	62	39	26	0
6744	212	27	2327	62	39	26	0
6745	204	27	2327	62	39	26	8
6746	179	25	2181	57	36	23	8
6747	163	25	2181	57	36	23	8
6748	183	25	2181	57	36	23	8
6749	185	26	2229	56	36	24	9
6750	170	26	2229	56	36	24	10
6751	120	25	2146	54	34	23	10
6752	96	25	2187	55	34	23	10
6753	98	25	2187	55	34	22	9
6754	128	26	2225	55	35	23	9
6755	145	26	2225	55	35	23	9
6756	167	27	2374	56	35	23	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6757	179	29	2524	58	35	23	9
6758	131	29	2524	58	35	22	9
6759	144	30	2676	61	35	22	10
6760	151	30	2676	61	34	21	10
6761	145	27	2374	56	35	23	9
6762	148	29	2524	58	35	23	9
6763	148	18	1433	50	38	26	9
6764	129	14	1024	48	31	26	9
6765	90	18	1471	51	35	25	10
6766	139	18	1471	51	35	25	10
6767	137	20	1598	53	38	26	13
6768	224	20	1598	53	38	26	13
6769	219	20	1598	53	38	26	13
6770	238	20	1598	53	38	26	13
6771	174	20	1592	53	38	26	11
6772	176	20	1585	52	38	26	10
6773	174	19	1578	52	38	26	8
6774	180	19	1571	52	37	27	6
6775	174	19	1564	52	37	27	4
6776	185	19	1558	51	37	27	2
6777	195	19	1551	51	37	27	0
6778	193	19	1551	51	37	27	0
6779	199	18	1545	46	33	23	4
6780	199	18	1540	42	29	19	8
6781	150	18	1540	42	29	19	8
6782	140	18	1540	42	29	19	8
6783	161	18	1540	42	29	19	8
6784	180	18	1540	42	29	19	8
6785	177	18	1561	39	25	16	0
6786	190	18	1561	39	25	16	0
6787	195	18	1561	39	25	16	0
6788	131	18	1561	39	25	16	0
6789	174	18	1561	39	25	16	0
6790	191	17	1508	38	23	14	7
6791	190	17	1508	38	23	14	7
6792	200	17	1508	38	23	14	7
6793	122	17	1488	38	22	13	0
6794	182	17	1488	38	22	13	0
6795	190	17	1488	38	22	13	0
6796	196	17	1514	38	22	13	0
6797	210	17	1539	38	22	14	0
6798	200	18	1564	38	22	14	0
6799	180	18	1590	38	22	14	0
6800	120	18	1590	38	22	14	0
6801	168	18	1590	38	22	14	0
6802	190	19	1629	38	22	14	6
6803	200	19	1629	38	22	14	6
6804	133	19	1629	38	22	14	6
6805	133	19	1629	38	22	14	6
6806	143	19	1629	38	22	14	6
6807	143	19	1629	38	22	14	6
6808	143	19	1629	38	22	14	6
6809	143	19	1629	38	22	14	6
6810	143	19	1692	40	22	14	6
6811	143	19	1692	40	22	14	6
6812	150	19	1692	40	22	14	6
6813	180	19	1692	40	22	14	6
6814	201	19	1692	40	22	14	6
6815	143	19	1692	40	22	14	6
6816	150	19	1692	40	22	14	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6817	143	19	1692	40	22	14	6
6818	113	20	1740	41	23	14	6
6819	72	20	1788	42	24	14	6
6820	97	20	1765	42	24	14	6
6821	131	20	1743	42	24	14	6
6822	77	20	1743	42	24	14	6
6823	96	20	1743	42	24	14	6
6824	85	19	1687	31	22	13	6
6825	118	18	1605	38	22	14	1
6826	135	18	1605	38	22	14	1
6827	125	18	1605	38	22	14	1
6828	54	17	1468	39	25	16	3
6829	148	17	1468	39	25	16	3
6830	112	17	1468	39	25	16	3
6831	176	20	1701	45	29	18	7
6832	124	21	1793	46	32	21	9
6833	129	21	1793	46	32	21	9
6834	196	21	1793	46	32	21	9
6835	146	22	1835	51	34	23	7
6836	157	22	1835	51	34	23	7
6837	216	22	1835	51	34	23	7
6838	243	23	1989	46	32	21	9
6839	222	23	1989	51	34	23	7
6840	189	24	2019	51	34	23	7
6841	214	24	2049	52	35	22	10
6842	178	24	2049	52	35	22	10
6843	156	24	2078	55	37	24	8
6844	96	24	2078	55	37	24	10
6845	162	24	1995	53	36	23	10
6846	126	24	1995	53	36	23	10
6847	150	23	1962	52	36	24	2
6848	144	23	1962	52	36	24	2
6849	163	23	1962	52	36	24	2
6850	190	23	1961	55	39	25	11
6851	216	23	1961	55	39	25	11
6852	48	25	2055	57	41	27	11
6853	76	25	2055	57	41	27	11
6854	150	26	2161	61	44	28	10
6855	119	26	2161	61	44	28	10
6856	125	27	2278	66	48	32	12
6857	157	27	2278	66	48	32	12
6858	98	27	2266	66	48	31	11
6859	85	31	2563	75	54	36	13
6860	107	31	2563	75	54	36	13
6861	91	31	2538	75	55	36	14
6862	134	31	2538	75	55	36	14
6863	85	31	2562	74	55	36	13
6864	134	31	2562	74	55	36	13
6865	141	33	2760	81	59	38	12
6866	193	33	2760	81	59	38	12
6867	134	33	2780	79	58	38	12
6868	106	33	2780	79	58	38	12
6869	115	31	2562	74	55	36	13
6870	102	33	2760	81	59	38	12
6871	155	33	2760	81	59	38	12
6872	150	33	2780	79	58	38	12
6873	138	33	2780	79	58	38	12
6874	158	17	1433	39	31	22	9
6875	142	17	1433	39	31	22	9
6876	91	29	2424	62	45	30	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6877	162	29	2424	62	45	30	12
6878	150	28	2414	62	43	29	11
6879	159	29	2424	62	45	30	12
6880	84	27	2351	59	41	28	1
6881	170	28	2413	59	40	27	10
6882	127	37	3308	74	40	27	10
6883	227	11	914	28	22	15	1
6884	144	11	956	29	21	15	0
6885	210	11	956	29	21	15	0
6886	100	13	1111	33	22	16	2
6887	36	16	1308	39	26	19	10
6888	84	18	1405	47	30	26	13
6889	201	18	1405	47	30	26	13
6890	115	18	1473	42	30	22	11
6891	142	18	1473	42	30	22	11
6892	212	18	1473	42	30	22	11
6893	182	16	1424	35	22	14	6
6894	173	17	1529	37	22	15	3
6895	142	17	1529	37	22	15	3
6896	237	17	1529	37	22	15	3
6897	196	16	1412	34	20	14	4
6898	198	16	1412	34	20	14	4
6899	178	16	1412	34	20	14	4
6900	211	12	1069	26	15	10	0
6901	176	12	1069	26	15	10	0
6902	162	12	1069	26	15	10	0
6903	160	16	1414	34	20	14	6
6904	161	16	1414	34	20	14	6
6905	164	19	1665	40	22	14	8
6906	170	19	1665	40	22	14	8
6907	180	19	1665	40	22	14	8
6908	162	19	1669	40	22	15	0
6909	186	19	1669	40	22	15	0
6910	163	19	1669	40	22	15	0
6911	203	19	1694	41	23	15	8
6912	206	19	1694	41	23	15	8
6913	210	19	1694	41	23	15	8
6914	213	20	1728	42	24	15	4
6915	229	20	1728	42	24	15	4
6916	146	20	1728	42	24	15	4
6917	225	20	1742	42	24	15	0
6918	164	20	1742	42	24	15	0
6919	181	21	1872	45	25	16	8
6920	172	21	1894	46	26	16	2
6921	181	21	1894	46	26	16	2
6922	169	21	1894	46	26	16	2
6923	177	20	1771	40	24	16	4
6924	176	20	1771	40	24	16	4
6925	134	20	1771	40	24	16	4
6926	232	19	1701	42	23	14	4
6927	193	19	1701	42	23	14	4
6928	184	18	1641	38	22	13	2
6929	162	18	1641	38	22	13	2
6930	180	18	1641	38	22	13	2
6931	210	18	1641	38	22	13	2
6932	239	24	2169	51	28	16	6
6933	223	24	2169	51	28	16	6
6934	213	24	2169	51	28	16	6
6935	262	26	2326	56	30	17	8
6936	269	26	2326	56	30	17	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6937	259	26	2326	56	30	17	8
6938	250	26	2326	56	30	17	8
6939	282	28	2515	63	35	17	3
6940	206	28	2515	63	35	17	3
6941	185	35	3097	74	39	20	7
6942	267	35	3097	74	39	20	7
6943	168	35	3097	74	39	20	7
6944	162	45	4115	65	45	22	7
6945	181	45	4115	65	45	22	7
6946	161	45	4115	65	45	22	7
6947	176	35	3240	52	39	19	1
6948	149	35	3240	52	39	19	1
6949	125	36	3310	54	38	18	8
6950	170	36	3310	54	38	18	8
6951	102	36	3310	54	38	18	8
6952	131	36	3284	56	41	18	8
6953	241	33	3004	53	37	17	2
6954	194	35	3240	52	39	19	1
6955	172	35	3240	52	39	19	1
6956	139	36	3310	54	38	18	8
6957	220	36	3310	54	38	18	8
6958	231	36	3310	54	38	18	8
6959	89	36	3284	56	41	18	8
6960	127	33	3004	53	37	17	2
6961	79	29	2617	46	34	16	5
6962	139	29	2617	46	34	16	5
6963	155	29	2617	46	34	16	5
6964	134	32	2887	51	36	17	2
6965	123	37	3312	66	41	19	6
6966	168	37	3312	66	41	19	6
6967	153	42	3802	80	48	24	6
6968	183	42	3802	80	48	24	0
6969	153	42	3802	80	48	24	7
6970	163	31	2722	61	38	20	7
6971	188	31	2722	61	38	20	7
6972	108	31	2722	61	38	21	7
6973	156	29	2554	56	37	21	7
6974	129	19	1673	37	25	15	2
6975	124	19	1673	37	25	15	2
6976	148	24	2120	48	34	19	7
6977	150	247	21943	438	341	166	38
6978	160	25	2218	47	30	18	10
6979	42	8	668	19	14	10	3
6980	67	11	921	26	17	11	5
6981	42	11	921	26	17	11	2
6982	26	9	742	22	13	8	2
6983	19	7	611	18	11	7	1
6984	12	7	617	17	12	8	2
6985	41	8	664	20	12	8	4
6986	82	9	780	22	14	9	0
6987	73	9	798	22	13	9	1
6988	60	12	1082	27	17	10	3
6989	35	14	1215	29	19	11	0
6990	61	12	1040	27	17	10	4
6991	58	11	938	26	16	9	0
6992	32	13	1122	31	19	10	4
6993	62	14	1214	36	22	12	2
6994	90	18	1560	47	32	17	2
6995	169	20	1704	51	36	20	6
6996	138	21	1744	52	36	20	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6997	134	21	1825	54	37	21	0
6998	186	21	1825	54	37	21	0
6999	71	19	1587	47	32	18	2
7000	233	19	1587	47	32	18	2
7001	186	16	1379	40	27	15	0
7002	168	16	1379	40	27	15	0
7003	230	16	1379	40	27	15	0
7004	176	14	1203	34	23	12	2
7005	191	14	1203	34	23	12	2
7006	192	14	1203	34	23	12	2
7007	192	14	1203	34	23	12	2
7008	164	15	1303	37	24	13	4
7009	202	15	1303	37	24	13	4
7010	159	15	1305	34	23	12	5
7011	222	15	1305	34	23	12	5
7012	206	15	1305	34	23	12	5
7013	238	15	1306	34	22	11	0
7014	235	15	1306	34	22	11	0
7015	240	15	1306	34	22	11	0
7016	196	13	1076	35	18	11	2
7017	241	13	1076	35	18	11	2
7018	209	13	1076	35	18	11	2
7019	161	20	1746	46	27	14	3
7020	200	20	1746	46	27	14	3
7021	151	20	1746	46	27	14	3
7022	207	18	1549	39	24	13	0
7023	197	18	1549	39	24	13	0
7024	218	18	1549	39	24	13	0
7025	238	14	1231	32	19	9	1
7026	147	13	1170	31	18	9	1
7027	150	13	1108	30	18	9	0
7028	72	11	992	27	16	8	2
7029	99	11	943	26	15	8	2
7030	120	10	893	24	14	7	2
7031	77	9	813	22	14	7	2
7032	124	9	806	22	14	7	2
7033	134	9	806	22	14	7	2
7034	104	11	949	27	16	8	0
7035	80	11	956	27	16	9	2
7036	120	11	956	27	16	9	2
7037	156	11	946	27	16	8	1
7038	86	12	1024	29	17	9	1
7039	127	12	1024	29	17	9	1
7040	130	12	1054	31	18	9	0
7041	129	12	1054	31	18	9	0
7042	128	18	1579	46	27	13	3
7043	99	13	1172	34	20	10	0
7044	111	13	1172	34	20	10	0
7045	113	12	1020	31	18	8	2
7046	115	12	1020	31	18	8	2
7047	112	12	994	32	18	9	2
7048	155	12	994	32	18	9	2
7049	130	7	601	30	13	8	3
7050	166	15	1269	36	22	9	2
7051	158	12	1032	32	18	8	1
7052	111	13	1172	34	20	10	0
7053	78	13	1172	34	20	10	0
7054	119	12	1020	31	18	8	2
7055	154	12	1020	31	18	8	2
7056	92	20	1743	55	33	16	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7057	84	20	1743	55	33	16	4
7058	141	21	1864	56	32	15	0
7059	135	21	1864	56	32	15	0
7060	140	19	1703	52	29	13	0
7061	108	19	1703	52	29	13	0
7062	117	17	1480	44	26	12	2
7063	100	20	1737	52	30	14	3
7064	169	20	1737	52	30	14	3
7065	144	20	1737	52	30	14	3
7066	96	19	1617	48	28	13	3
7067	121	16	1403	43	25	12	2
7068	121	16	1403	43	25	12	2
7069	151	18	1548	46	27	13	3
7070	118	18	1548	46	27	13	3
7071	132	17	1481	43	26	12	0
7072	140	21	1773	55	33	16	1
7073	210	33	1878	106	129	140	47
7074	18	33	1942	112	131	135	46
7075	30	27	1480	72	109	126	54
7076	28	19	1117	60	66	72	26
7077	46	18	1063	57	64	70	25
7078	30	16	1006	53	58	60	22
7079	32	16	1017	47	56	57	20
7080	25	24	1594	70	80	79	29
7081	30	18	1217	54	60	57	20
7082	14	9	592	28	29	32	13
7083	38	6	369	19	21	27	13
7084	31	8	436	22	28	35	16
7085	63	10	566	30	36	45	19
7086	47	13	754	39	48	60	24
7087	50	15	815	41	52	65	28
7088	61	16	888	44	59	72	31
7089	49	15	776	42	58	78	34
7090	73	14	689	38	58	78	35
7091	24	16	717	43	66	93	41
7092	26	18	778	48	80	114	51
7093	134	18	778	48	80	114	51
7094	80	16	640	42	70	100	45
7095	87	16	640	42	70	100	45
7096	123	15	593	40	67	95	42
7097	134	18	760	49	79	111	48
7098	132	21	927	58	91	128	55
7099	48	20	953	55	80	111	46
7100	66	20	983	56	78	109	49
7101	92	20	983	56	78	109	49
7102	90	17	856	48	64	91	40
7103	93	18	885	51	67	96	39
7104	108	18	885	51	67	96	39
7105	123	31	1541	79	117	156	76
7106	93	16	820	44	59	79	33
7107	95	22	1154	61	79	106	52
7108	100	22	1154	61	79	106	52
7109	123	15	822	42	55	73	28
7110	98	16	857	44	56	74	33
7111	71	16	857	44	56	74	33
7112	128	15	816	42	52	71	34
7113	116	15	816	42	52	71	34
7114	138	15	797	42	51	70	34
7115	82	18	1017	51	62	86	40
7116	78	21	1202	58	66	90	44

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7117	78	21	1202	58	66	90	44
7118	73	18	1067	50	52	69	35
7119	109	17	1027	47	52	70	33
7120	162	18	1089	50	50	67	32
7121	78	18	1089	50	50	67	32
7122	210	18	1089	50	50	67	32
7123	143	21	1362	60	58	73	36
7124	175	21	1362	60	58	73	36
7125	226	21	1362	60	58	73	36
7126	146	29	1922	78	76	94	47
7127	149	29	1922	78	76	94	47
7128	78	27	1803	72	67	81	39
7129	129	19	1288	51	46	53	25
7130	139	19	1288	51	46	53	25
7131	127	19	1288	51	46	53	25
7132	165	17	1182	50	43	51	25
7133	164	17	1182	50	43	51	25
7134	158	22	1544	64	53	61	31
7135	138	18	1089	50	50	67	32
7136	156	18	1089	50	50	67	32
7137	149	18	1089	50	50	67	32
7138	150	21	1362	60	58	73	36
7139	101	21	1362	60	58	73	36
7140	133	21	1362	60	58	73	36
7141	144	29	1922	78	76	94	47
7142	142	29	1922	78	76	94	47
7143	170	27	1803	72	67	81	39
7144	140	12	830	33	30	36	19
7145	147	12	830	33	30	36	19
7146	139	10	689	30	24	28	13
7147	122	11	789	31	26	30	14
7148	138	11	789	31	26	30	14
7149	153	11	789	31	26	30	14
7150	147	12	855	34	28	30	14
7151	123	12	855	34	28	30	14
7152	160	22	1639	75	58	43	17
7153	145	51	3778	194	146	86	25
7154	93	51	3778	194	146	86	25
7155	151	97	7212	419	287	157	41
7156	141	98	7212	419	287	158	42
7157	110	95	7026	372	285	158	42
7158	131	95	7026	372	285	158	42
7159	151	64	4727	270	185	107	30
7160	108	48	3575	184	138	84	26
7161	97	48	3575	184	138	84	26
7162	136	41	2979	154	116	77	26
7163	104	41	2979	154	116	77	26
7164	107	26	1875	93	71	49	17
7165	130	37	2706	114	94	78	32
7166	182	51	3507	149	131	145	70
7167	1	9	491	22	27	36	21
7168	68	9	498	25	27	43	25
7169	187	9	498	25	27	43	25
7170	156	9	512	25	27	43	25
7171	207	9	512	25	27	37	18
7172	163	9	512	25	27	37	18
7173	182	9	512	25	27	37	19
7174	168	8	459	23	23	36	19
7175	187	8	459	23	23	36	19
7176	161	9	524	24	22	32	19

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7177	148	9	524	24	22	32	19
7178	148	12	829	34	29	40	20
7179	159	12	829	34	29	40	20
7180	148	13	880	35	32	40	21
7181	121	13	880	35	32	40	21
7182	141	13	880	35	32	40	21
7183	146	12	833	34	29	36	20
7184	160	12	833	34	29	36	20
7185	124	9	627	27	21	24	12
7186	136	14	1033	43	32	33	18
7187	138	14	1033	43	32	33	18
7188	159	17	1197	50	37	38	20
7189	146	17	1197	50	37	38	20
7190	127	17	1197	50	37	38	20
7191	139	13	921	39	29	28	14
7192	198	13	921	39	29	28	14
7193	151	13	921	39	29	28	14
7194	184	13	933	38	29	30	14
7195	86	15	1166	38	29	30	2
7196	64	12	1166	0	0	0	0
7197	96	12	1166	0	0	0	0
7198	114	12	1227	0	0	0	0
7199	75	15	1227	33	24	26	11
7200	118	14	1059	42	33	31	15
7201	50	14	1059	42	33	31	15
7202	73	14	1070	40	31	28	14
7203	111	14	1070	40	31	27	12
7204	83	19	1428	56	42	37	17
7205	105	19	1428	56	42	37	17
7206	85	17	1246	49	38	33	14
7207	179	14	1064	43	35	28	12
7208	137	27	2026	89	68	54	24
7209	125	27	2026	89	68	54	24
7210	162	20	1475	67	52	41	16
7211	118	20	1475	67	52	41	16
7212	118	19	1425	65	50	38	17
7213	149	19	1425	65	50	38	17
7214	180	19	1425	65	50	38	17
7215	168	19	1390	62	49	36	15
7216	167	19	1390	62	49	36	15
7217	135	18	1358	62	48	36	15
7218	120	18	1358	62	48	36	15
7219	171	49	3640	163	126	97	39
7220	133	49	3640	163	126	97	39
7221	169	49	3640	163	126	97	39
7222	154	33	2466	110	85	66	25
7223	144	25	1819	82	62	48	20
7224	146	25	1819	82	62	48	20
7225	157	25	1819	82	62	48	20
7226	176	17	1274	57	44	36	15
7227	167	22	1584	71	54	45	19
7228	144	24	1779	79	59	50	22
7229	94	27	2081	73	57	46	21
7230	114	38	2925	105	82	71	35
7231	99	38	2925	105	82	71	35
7232	117	23	1724	63	50	47	22
7233	101	23	1724	63	50	47	22
7234	133	18	1314	49	40	40	20
7235	127	32	2416	83	70	65	36
7236	121	32	2416	83	70	65	36

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7237	148	32	2416	83	70	65	36
7238	143	22	1760	57	44	39	2
7239	120	26	2025	67	52	42	22
7240	59	27	2081	73	57	46	22
7241	62	27	2081	73	57	46	21
7242	82	38	2925	105	82	71	35
7243	136	38	2925	105	82	71	35
7244	95	23	1724	63	50	47	22
7245	99	23	1724	63	50	47	22
7246	165	18	1314	49	40	40	20
7247	157	27	1955	70	57	58	32
7248	121	27	1955	70	57	58	32
7249	117	27	1955	70	57	58	32
7250	102	17	1216	44	37	40	20
7251	120	24	1751	63	53	58	32
7252	118	24	1751	63	53	58	32
7253	181	24	1751	63	53	58	32
7254	134	18	1274	47	39	44	23
7255	121	17	1240	46	38	44	24
7256	103	24	1755	66	51	55	32
7257	95	24	1755	66	51	55	32
7258	108	14	1015	37	31	36	19
7259	88	14	1015	37	31	36	19
7260	120	62	4937	179	130	84	33
7261	154	15	1137	46	34	31	17
7262	46	10	729	26	25	24	14
7263	39	10	729	26	25	24	14
7264	172	9	595	26	21	23	12
7265	165	9	595	26	21	23	12
7266	126	12	845	34	29	29	16
7267	163	12	845	34	29	29	16
7268	169	12	845	34	29	29	16
7269	125	9	650	26	20	20	10
7270	56	9	650	26	20	20	10
7271	87	12	843	34	29	29	15
7272	53	12	843	34	29	29	15
7273	115	14	995	40	33	32	16
7274	159	14	995	40	33	32	16
7275	169	15	1078	42	36	33	18
7276	151	15	1078	42	36	33	18
7277	156	15	1078	42	36	33	18
7278	82	10	711	28	22	21	11
7279	134	10	711	28	22	21	11
7280	145	9	686	27	20	18	1
7281	106	9	697	27	21	18	9
7282	113	13	1009	36	28	25	12
7283	140	13	1009	36	28	25	12
7284	105	15	1133	40	32	28	14
7285	126	17	1257	44	36	32	16
7286	165	17	1257	44	36	32	16
7287	160	17	1257	44	36	32	16
7288	67	11	821	31	25	23	11
7289	106	10	813	31	25	23	1
7290	136	9	718	29	22	21	1
7291	141	9	718	29	22	21	1
7292	159	10	750	31	23	23	10
7293	116	12	899	31	23	23	10
7294	108	9	899	0	0	0	0
7295	115	19	1391	53	44	40	21
7296	156	19	1391	53	44	40	21

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7297	119	14	1016	40	32	31	16
7298	113	14	1016	40	32	31	16
7299	127	14	990	37	31	30	15
7300	121	14	990	37	31	30	15
7301	107	14	1033	39	30	28	15
7302	120	17	1271	44	36	35	19
7303	145	17	1271	44	36	35	19
7304	141	19	1413	52	40	37	22
7305	64	19	1413	52	40	37	22
7306	124	17	1298	46	35	34	19
7307	130	17	1298	46	35	34	19
7308	138	25	1866	61	48	46	28
7309	170	25	1866	61	48	46	28
7310	156	26	1945	65	49	48	29
7311	108	26	1945	65	49	48	29
7312	162	26	1945	65	49	48	29
7313	110	17	1299	44	33	32	20
7314	135	17	1299	44	33	32	20
7315	127	16	1231	42	32	31	19
7316	140	34	2534	82	66	66	43
7317	137	34	2534	82	66	66	43
7318	167	46	3492	109	86	89	58
7319	184	46	3492	109	86	89	58
7320	126	46	3492	109	86	89	58
7321	144	46	3492	109	86	89	58
7322	167	37	2851	88	69	71	44
7323	150	49	3760	109	86	87	59
7324	146	49	3760	109	86	87	59
7325	128	49	3760	109	86	87	59
7326	131	18	1396	40	31	33	15
7327	118	51	4140	80	76	72	48
7328	108	49	4106	103	78	59	28
7329	160	49	4106	103	78	59	28
7330	176	41	3581	85	63	46	0
7331	141	40	3376	78	55	40	22
7332	174	40	3376	78	55	40	22
7333	165	40	3376	78	55	40	22
7334	96	30	2215	67	56	60	42
7335	160	30	2215	67	56	60	42
7336	154	58	4815	111	80	67	42
7337	141	57	4815	111	80	67	40
7338	139	57	4815	111	80	67	40
7339	169	39	3320	75	52	38	18
7340	162	39	3320	75	52	38	18
7341	142	40	3376	78	55	40	22
7342	146	40	3376	78	55	40	22
7343	168	40	3376	78	55	40	22
7344	145	41	3581	85	63	46	0
7345	97	49	4106	103	78	59	28
7346	97	49	4106	103	78	59	28
7347	122	49	4106	103	78	59	28
7348	133	37	2999	82	64	50	26
7349	160	40	3234	94	74	58	29
7350	142	40	3234	94	74	58	29
7351	121	40	3234	94	74	58	29
7352	169	30	2395	71	57	47	25
7353	157	30	2395	71	57	47	25
7354	174	29	2263	67	53	46	24
7355	173	29	2263	67	53	46	24
7356	189	361	29983	927	733	385	96

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7357	1	107	8864	282	211	116	40
7358	96	17	1358	48	38	27	12
7359	84	17	1358	48	38	27	12
7360	143	14	1053	40	28	24	9
7361	148	14	1053	40	28	24	9
7362	159	14	1053	40	28	24	9
7363	154	12	897	31	24	20	8
7364	190	12	897	31	24	20	8
7365	183	11	857	29	21	17	10
7366	118	11	857	29	21	17	10
7367	113	9	701	23	17	15	2
7368	138	10	747	24	18	16	9
7369	143	10	747	24	18	16	9
7370	171	10	747	24	18	16	9
7371	126	11	813	27	22	22	14
7372	165	11	813	27	22	22	14
7373	182	11	813	27	22	22	14
7374	159	9	707	23	19	19	12
7375	146	17	1289	38	32	31	19
7376	112	17	1289	38	32	31	19
7377	142	12	917	31	24	25	16
7378	126	12	917	31	24	25	16
7379	166	12	914	31	22	23	14
7380	140	12	914	31	22	23	14
7381	113	12	914	31	22	23	15
7382	125	12	899	30	22	22	15
7383	137	12	885	29	21	20	15
7384	141	11	860	28	19	18	12
7385	157	15	1157	33	24	22	15
7386	181	15	1157	33	24	22	15
7387	129	15	1149	33	24	22	15
7388	109	14	1142	34	24	22	15
7389	129	16	1311	36	28	24	17
7390	111	16	1311	36	28	24	17
7391	165	16	1284	38	27	26	15
7392	148	16	1284	38	27	26	15
7393	163	16	1284	38	27	26	15
7394	167	13	1044	28	23	22	15
7395	129	13	1044	28	23	22	15
7396	146	15	1286	36	27	26	0
7397	152	15	1286	36	27	26	0
7398	149	24	1956	55	41	35	24
7399	162	24	1956	55	41	35	24
7400	141	28	2232	68	45	38	24
7401	144	28	2232	68	45	38	24
7402	155	28	2232	68	45	38	24
7403	154	12	968	30	22	19	11
7404	183	12	968	30	22	19	11
7405	175	39	3098	93	68	57	39
7406	145	39	3098	93	68	57	39
7407	146	40	3187	100	68	57	39
7408	179	0	33	0	0	3	0
7409	200	0	2	0	0	0	0
7410	183	0	2	0	0	0	0
7411	210	0	2	0	0	0	0
7412	160	0	2	0	0	0	0
7413	179	0	2	0	0	0	0
7414	243	0	2	0	0	0	0
7415	156	19	1437	49	37	32	23
7416	131	19	1437	49	37	32	23

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7417	179	19	1437	49	37	32	23
7418	227	19	1437	49	37	32	23
7419	200	56	4527	136	93	71	50
7420	220	56	4527	136	93	71	50
7421	272	56	4527	136	93	71	50
7422	161	34	2748	86	59	45	25
7423	175	34	2748	86	59	45	25
7424	121	36	2860	90	63	51	40
7425	189	36	2860	90	63	51	40
7426	172	36	2860	90	63	51	40
7427	169	36	2860	90	63	51	40
7428	197	29	2337	76	52	42	24
7429	179	29	2337	76	52	42	24
7430	186	42	3323	107	72	57	40
7431	175	42	3323	107	72	57	40
7432	179	42	3323	107	72	57	40
7433	247	21	1648	57	36	28	14
7434	179	25	2009	70	43	34	21
7435	173	25	2009	70	43	34	21
7436	98	25	2009	70	43	34	21
7437	161	49	3972	122	81	64	43
7438	152	49	3972	122	81	64	43
7439	166	49	3972	122	81	64	43
7440	149	16	1298	43	28	22	0
7441	156	16	1306	44	29	23	14
7442	104	16	1306	44	29	23	14
7443	146	16	1306	44	29	23	14
7444	140	14	1106	37	25	20	10
7445	127	21	1717	59	39	30	15
7446	161	21	1717	59	39	30	15
7447	145	21	1717	59	39	30	15
7448	160	19	1535	52	35	26	14
7449	203	19	1535	52	35	26	14
7450	199	52	4249	139	94	63	32
7451	1	53	4166	161	132	80	26
7452	155	13	956	39	32	26	10
7453	84	10	708	30	23	20	9
7454	68	8	654	25	20	18	1
7455	87	9	689	25	20	16	9
7456	61	9	689	25	20	16	9
7457	61	11	811	30	23	19	10
7458	162	11	811	30	23	21	13
7459	111	11	809	30	23	21	13
7460	123	11	809	30	23	21	13
7461	101	11	818	30	24	23	15
7462	150	11	818	30	24	23	15
7463	163	11	818	30	24	23	15
7464	165	10	711	26	20	18	12
7465	150	10	711	26	20	18	12
7466	129	8	586	23	16	14	9
7467	136	8	660	23	15	13	8
7468	140	8	660	23	15	13	8
7469	134	8	660	23	15	13	8
7470	140	8	598	21	14	12	6
7471	145	5	422	16	11	8	2
7472	68	5	422	17	11	9	3
7473	90	5	410	17	10	9	3
7474	85	5	372	16	10	9	0
7475	135	5	372	16	10	9	0
7476	215	9	726	28	17	14	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7477	158	9	726	28	17	14	9
7478	147	10	798	31	19	16	9
7479	150	10	798	31	19	16	1
7480	169	11	888	34	22	16	10
7481	156	11	888	34	22	16	10
7482	110	9	763	29	19	16	2
7483	136	9	763	29	19	16	2
7484	128	13	1031	39	24	19	12
7485	146	13	1031	39	24	19	12
7486	131	16	1256	44	30	24	14
7487	125	16	1256	44	30	24	14
7488	113	14	1072	40	25	21	11
7489	104	12	919	34	21	19	11
7490	102	12	919	34	21	19	11
7491	111	10	798	28	19	17	9
7492	164	10	798	28	19	17	9
7493	208	7	558	19	13	13	7
7494	150	7	558	19	13	13	7
7495	130	8	653	21	14	13	2
7496	123	8	653	21	14	13	2
7497	125	26	2118	70	48	33	16
7498	161	79	6272	233	162	100	46
7499	121	79	6272	233	162	100	46
7500	109	79	6272	233	162	100	46
7501	125	30	2429	105	70	42	2
7502	114	30	2429	105	70	42	2
7503	157	31	2416	94	67	40	18
7504	123	31	2416	94	67	40	18
7505	155	68	5399	201	142	86	37
7506	109	68	5399	201	142	86	37
7507	138	55	4432	163	115	69	30
7508	116	43	3466	124	88	52	23
7509	121	45	4452	0	0	0	0
7510	112	55	4452	167	104	66	33
7511	64	55	4399	167	104	66	33
7512	114	58	4699	169	113	72	36
7513	150	58	4699	169	113	72	36
7514	97	27	2160	80	53	34	14
7515	116	27	2160	80	53	34	14
7516	109	17	1356	54	33	21	11
7517	108	24	1966	77	47	29	12
7518	123	24	1966	77	47	29	12
7519	90	32	2592	101	61	37	12
7520	125	69	5573	204	132	77	40
7521	86	69	5573	204	132	77	40
7522	76	69	5573	204	132	77	40
7523	135	37	2957	110	71	42	19
7524	110	37	2957	110	71	42	19
7525	138	31	2493	94	60	36	18
7526	123	31	2493	94	60	36	18
7527	159	20	1606	64	40	25	11
7528	170	20	1606	64	40	25	11
7529	110	30	2425	90	59	38	18
7530	133	30	2425	90	59	38	18
7531	128	30	2425	90	59	38	18
7532	116	64	5086	199	125	80	42
7533	109	64	5086	199	125	80	42
7534	130	40	3186	120	82	53	23
7535	93	40	3186	120	82	53	23
7536	78	25	1942	78	51	33	15

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7537	110	21	1632	67	43	28	13
7538	154	17	1322	56	35	24	10
7539	107	17	1322	56	35	25	10
7540	82	26	2084	77	53	35	14
7541	90	26	2084	77	53	35	14
7542	123	69	5520	205	133	84	42
7543	103	69	5520	205	133	84	42
7544	117	67	5384	194	131	83	41
7545	104	127	10685	334	248	121	29
7546	0	127	10685	334	248	121	29
7547	106	72	6009	190	137	70	19
7548	31	12	982	34	25	16	3
7549	95	12	996	35	28	18	2
7550	89	9	720	26	20	14	2
7551	69	9	720	26	20	14	2
7552	95	8	626	24	18	12	0
7553	113	7	584	22	16	12	0
7554	116	8	637	25	16	12	0
7555	86	8	637	25	16	11	0
7556	69	8	626	24	16	10	0
7557	85	9	740	24	16	10	0
7558	90	10	818	31	23	14	4
7559	90	10	818	31	23	14	4
7560	117	10	784	30	21	13	0
7561	102	10	784	30	21	13	1
7562	126	8	680	25	16	10	1
7563	112	7	618	23	14	8	0
7564	74	10	818	31	23	14	4
7565	72	10	784	30	21	13	0
7566	104	10	784	30	21	13	1
7567	97	23	1913	65	42	26	13
7568	103	23	1913	65	42	26	13
7569	92	16	1378	49	28	17	2
7570	98	10	860	32	18	11	0
7571	74	31	2593	88	55	32	15
7572	54	44	3582	128	75	46	25
7573	67	18	1527	49	31	18	0
7574	72	12	1043	35	22	13	0
7575	105	22	1812	60	38	24	2
7576	54	10	839	30	18	13	0
7577	89	10	856	31	18	13	0
7578	77	11	967	33	19	13	0
7579	92	11	967	33	19	13	0
7580	78	33	2808	81	50	29	16
7581	86	33	2808	81	50	29	16
7582	82	19	1621	44	27	15	0
7583	24	15	1316	41	23	12	0
7584	93	12	1031	34	19	12	0
7585	58	11	900	31	17	11	0
7586	67	9	749	26	15	9	0
7587	80	8	721	25	14	8	0
7588	115	9	727	25	14	9	0
7589	96	20	1663	56	32	21	4
7590	56	20	1663	56	32	21	4
7591	57	63	5289	179	125	60	12
7592	65	68	5650	178	121	66	24
7593	75	22	1878	59	40	24	3
7594	52	20	1660	55	39	24	3
7595	35	13	1032	38	28	18	0
7596	32	10	827	31	22	14	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7597	104	10	827	31	22	14	0
7598	100	11	869	32	22	16	0
7599	110	11	912	34	23	15	0
7600	82	10	800	29	18	12	0
7601	83	10	800	29	18	12	0
7602	98	14	1145	39	24	15	0
7603	105	14	1145	39	24	15	0
7604	75	17	1449	48	30	18	0
7605	104	11	897	29	20	12	0
7606	102	18	1551	51	33	20	0
7607	85	18	1551	51	33	20	0
7608	105	38	3144	106	68	40	15
7609	109	38	3144	106	68	40	15
7610	112	47	3858	130	84	49	21
7611	129	35	2916	102	65	38	2
7612	98	35	2916	102	65	38	2
7613	125	31	2616	92	58	32	2
7614	107	28	2389	85	54	29	0
7615	89	22	1874	66	41	22	0
7616	92	22	1874	66	41	22	0
7617	126	38	3153	115	69	35	12
7618	110	38	3153	115	69	35	12
7619	63	52	4318	156	97	49	23
7620	136	46	3816	140	87	45	20
7621	92	46	3816	140	87	45	20
7622	94	23	1971	73	45	23	0
7623	82	23	1971	73	45	23	0
7624	112	22	1874	66	41	22	0
7625	137	22	1874	66	41	22	0
7626	100	18	1455	61	39	23	4
7627	119	18	1455	61	39	23	4
7628	123	18	1551	51	33	20	0
7629	120	14	1145	39	24	15	0
7630	101	14	1145	39	24	15	0
7631	124	18	1455	61	39	23	4
7632	68	18	1455	61	39	23	4
7633	80	20	1564	62	44	27	6
7634	92	20	1564	62	44	27	6
7635	103	23	1934	71	45	25	2
7636	126	23	1934	71	45	25	2
7637	81	39	3238	123	71	38	17
7638	95	39	3238	123	71	38	17
7639	110	49	4110	154	86	45	17
7640	104	49	4110	154	86	45	16
7641	107	49	4110	154	86	45	16
7642	150	58	4753	169	126	68	17
7643	130	58	4753	169	126	68	17
7644	121	30	2444	89	66	40	9
7645	31	30	2374	87	65	41	13
7646	141	38	3140	109	74	44	0
7647	37	59	4978	163	98	52	21
7648	60	59	4978	163	98	52	21
7649	168	69	5668	204	131	76	32
7650	142	69	5668	204	131	76	32
7651	171	66	5375	200	129	74	30
7652	148	64	5375	169	100	62	25
7653	133	61	5118	162	98	54	20
7654	167	61	5118	162	98	54	20
7655	163	61	5118	162	98	54	20
7656	172	71	6200	176	102	50	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7657	147	71	6200	176	102	50	3
7658	127	88	7690	214	119	54	20
7659	117	87	7688	219	121	55	3
7660	81	68	5992	176	98	47	0
7661	59	68	5992	176	98	47	0
7662	95	61	5281	161	91	45	4
7663	88	57	4928	146	86	44	3
7664	94	57	4928	146	86	44	3
7665	89	55	4734	141	84	45	5
7666	110	60	5188	152	92	49	0
7667	116	60	5188	152	92	49	0
7668	158	65	5665	163	98	50	0
7669	151	65	5665	163	98	50	0
7670	119	65	5632	168	99	51	0
7671	78	67	5796	173	104	52	17
7672	68	95	8100	266	162	77	23
7673	95	118	9952	337	215	100	27
7674	106	118	9952	337	215	100	27
7675	120	113	9481	323	204	96	26
7676	97	92	7763	256	161	77	23
7677	83	92	7763	256	161	77	23
7678	85	74	6313	202	126	61	7
7679	114	74	6313	202	126	61	7
7680	121	67	5714	183	110	53	11
7681	91	79	6696	218	130	63	20
7682	105	79	6696	218	130	63	20
7683	111	31	2649	90	53	27	0
7684	83	44	3918	92	55	27	0
7685	100	30	2538	90	56	28	0
7686	120	19	1591	58	36	18	0
7687	79	23	1892	71	43	22	0
7688	91	38	3179	115	74	38	0
7689	97	38	3179	115	74	38	0
7690	93	30	2473	92	60	32	5
7691	104	25	2081	75	49	26	0
7692	105	25	2081	75	49	26	0
7693	92	16	1363	50	32	17	0
7694	52	22	1869	68	44	24	0
7695	39	27	2282	82	54	30	0
7696	78	27	2282	82	54	30	0
7697	131	33	2695	96	66	36	7
7698	113	33	2695	96	66	36	7
7699	93	21	1770	63	43	24	0
7700	85	61	5062	176	118	62	17
7701	134	61	5062	176	118	62	17
7702	126	61	5062	176	118	62	17
7703	113	134	11058	415	276	134	33
7704	144	134	11058	415	276	134	33
7705	62	115	9507	359	237	115	27
7706	108	115	9507	359	237	115	27
7707	99	96	7931	301	190	98	26
7708	121	96	7931	276	190	98	26
7709	112	96	7931	276	190	98	26
7710	119	89	7358	270	181	91	26
7711	96	89	7358	270	181	91	26
7712	115	75	6132	234	149	79	23
7713	115	58	4842	182	118	60	8
7714	106	58	4842	182	118	60	9
7715	155	58	4826	180	115	58	9
7716	129	62	5200	192	121	60	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7717	112	62	5200	192	121	60	3
7718	137	66	5446	201	126	63	19
7719	140	66	5446	201	126	63	19
7720	125	66	5446	201	126	63	19
7721	124	48	4025	147	91	45	0
7722	141	48	4025	147	91	45	0
7723	116	32	2668	103	59	29	0
7724	106	21	1783	67	41	19	0
7725	133	23	1986	73	44	21	0
7726	88	23	1986	73	44	21	0
7727	122	23	1986	73	44	21	0
7728	115	22	1864	69	41	19	0
7729	88	21	1742	65	38	18	0
7730	52	21	1742	65	38	18	0
7731	100	21	1767	66	39	18	0
7732	128	21	1767	66	39	18	0
7733	116	25	2090	78	46	21	0
7734	111	25	2090	78	46	21	0
7735	95	28	2388	89	52	23	0
7736	117	28	2388	89	52	23	0
7737	156	39	3177	116	80	44	22
7738	73	138	10651	504	394	185	40
7739	170	13	1099	36	25	14	0
7740	37	10	793	28	20	12	0
7741	65	10	793	28	20	12	0
7742	152	25	2139	66	41	22	0
7743	80	20	1670	56	38	20	0
7744	120	14	1186	43	30	18	0
7745	100	14	1186	43	30	18	0
7746	109	13	1048	38	26	15	0
7747	157	13	1048	38	26	15	0
7748	122	10	838	31	19	12	0
7749	160	10	838	31	19	12	0
7750	97	13	1122	42	25	14	0
7751	68	9	776	29	17	10	0
7752	129	9	776	29	17	10	0
7753	122	9	797	29	17	9	0
7754	161	9	779	28	16	8	0
7755	107	9	779	28	16	8	0
7756	114	9	782	28	16	8	0
7757	95	9	782	28	16	8	0
7758	174	9	753	26	15	7	0
7759	77	9	767	26	15	7	0
7760	147	9	767	26	15	7	0
7761	65	11	956	32	19	9	0
7762	165	11	956	32	19	9	0
7763	56	10	833	29	15	8	0
7764	153	10	833	29	15	8	0
7765	86	8	734	26	13	6	0
7766	132	8	734	26	13	6	0
7767	58	7	627	22	11	4	0
7768	159	7	627	22	11	4	0
7769	132	7	623	22	11	5	0
7770	102	8	648	23	12	6	0
7771	60	8	648	23	12	6	0
7772	60	8	700	24	12	5	0
7773	49	8	700	24	12	5	0
7774	76	8	707	24	12	5	0
7775	89	11	924	32	16	6	0
7776	126	9	825	28	14	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7777	125	9	825	28	14	6	0
7778	121	10	878	30	15	6	0
7779	79	14	1222	37	20	8	0
7780	163	14	1222	37	20	8	0
7781	125	14	1222	37	20	8	0
7782	112	20	1728	59	28	13	0
7783	82	15	1287	44	21	10	0
7784	74	15	1287	44	21	10	0
7785	112	13	1160	40	19	7	0
7786	69	12	1035	35	17	7	0
7787	100	12	1035	35	17	7	0
7788	135	10	886	28	15	7	0
7789	106	10	839	27	14	6	0
7790	85	9	822	27	14	6	0
7791	138	9	822	27	14	6	0
7792	99	10	854	27	14	6	0
7793	130	10	854	27	14	6	0
7794	86	9	825	27	14	5	0
7795	173	10	836	28	14	5	0
7796	108	10	836	28	14	5	0
7797	94	10	879	29	16	7	0
7798	101	12	1010	33	18	9	0
7799	116	12	1010	33	18	9	0
7800	163	14	1231	41	23	11	0
7801	101	14	1231	41	23	11	0
7802	69	16	1358	45	25	12	0
7803	98	21	1812	59	34	16	0
7804	131	21	1812	59	34	16	0
7805	85	25	2149	70	41	19	0
7806	138	25	2149	70	41	19	0
7807	89	19	1608	52	32	16	0
7808	125	13	1116	37	23	12	0
7809	90	18	1518	50	30	15	0
7810	104	14	1231	41	23	11	0
7811	131	14	1231	41	23	11	0
7812	100	16	1358	45	25	12	0
7813	91	21	1812	59	34	16	0
7814	114	20	1628	56	37	20	5
7815	93	20	1628	56	37	20	5
7816	106	20	1628	56	37	20	5
7817	80	33	2808	92	56	29	6
7818	138	25	2156	70	42	21	0
7819	123	25	2156	70	42	21	0
7820	101	35	2985	95	57	28	0
7821	58	32	2757	88	52	26	0
7822	99	29	2528	80	48	24	0
7823	71	27	2329	73	44	22	0
7824	79	22	1899	61	36	19	0
7825	80	21	1823	58	34	17	0
7826	47	21	1830	58	34	17	0
7827	94	22	1952	60	34	17	0
7828	78	23	1976	61	34	17	0
7829	92	23	2000	62	34	17	0
7830	100	23	2000	62	34	17	0
7831	74	15	1340	42	23	11	0
7832	67	12	1061	33	18	8	0
7833	104	67	5918	178	97	31	0
7834	85	25	2122	68	43	22	0
7835	90	23	1924	64	40	20	0
7836	77	22	1849	64	40	19	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7837	100	9	822	27	14	6	0
7838	45	9	822	27	14	6	0
7839	40	10	854	27	14	6	0
7840	34	11	902	28	18	14	0
7841	43	14	1231	30	20	15	0
7842	6	39	3136	102	76	48	19
7843	30	38	3190	98	67	43	14
7844	33	33	2733	86	58	37	12
7845	15	16	1275	48	37	26	6
7846	15	26	2279	56	39	24	2
7847	13	10	872	27	19	15	0
7848	33	10	844	22	18	14	0
7849	32	9	740	19	14	11	0
7850	23	5	379	12	8	8	0
7851	13	6	480	14	10	8	0
7852	39	6	480	14	10	8	0
7853	41	8	668	19	12	9	0
7854	13	4	344	10	7	6	0
7855	14	3	285	10	6	6	0
7856	15	6	538	18	11	8	0
7857	15	6	503	17	11	8	0
7858	210	6	468	17	12	8	0
7859	270	6	468	17	12	8	0
7860	227	6	468	17	12	8	0
7861	271	6	490	17	12	9	0
7862	233	6	512	17	12	9	0
7863	250	6	512	17	12	9	0
7864	220	6	512	17	12	9	0
7865	230	6	512	17	12	9	0
7866	245	7	543	18	12	9	0
7867	274	7	574	18	12	9	0
7868	236	11	907	28	19	14	0
7869	190	11	907	28	19	14	0
7870	177	11	907	28	19	14	0
7871	200	12	1030	31	21	15	0
7872	208	12	1030	31	21	15	0
7873	169	12	1030	31	21	15	0
7874	185	13	1094	32	22	15	0
7875	203	13	1094	32	22	15	0
7876	241	14	1208	35	24	17	0
7877	233	15	1323	38	26	18	0
7878	228	15	1323	38	26	18	0
7879	174	15	1323	38	26	18	0
7880	215	14	1206	35	24	17	0
7881	250	14	1206	35	24	17	0
7882	213	14	1206	35	24	17	0
7883	236	14	1206	35	24	17	0
7884	228	14	1206	35	24	17	0
7885	226	10	811	24	16	12	0
7886	239	10	811	24	16	12	0
7887	237	10	863	25	17	12	0
7888	278	11	916	26	17	12	0
7889	185	11	916	26	17	12	0
7890	239	13	1099	30	19	12	0
7891	254	22	1891	49	30	19	2
7892	246	31	2683	68	41	25	3
7893	163	20	1689	48	31	19	3
7894	171	20	1689	48	31	19	3
7895	168	20	1689	48	31	19	3
7896	175	22	1873	54	34	22	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7897	118	22	1873	54	34	22	0
7898	161	24	2063	61	38	24	3
7899	173	24	2063	61	38	24	3
7900	193	24	2063	61	38	24	3
7901	151	33	2828	82	52	32	3
7902	178	33	2828	82	52	32	3
7903	169	14	1190	34	22	14	4
7904	147	14	1190	34	22	14	4
7905	150	14	1190	34	22	14	4
7906	170	9	731	22	14	10	0
7907	184	9	731	22	14	10	0
7908	181	9	766	22	14	9	2
7909	129	13	1122	32	21	14	2
7910	102	13	1122	32	21	14	0
7911	217	16	1358	40	25	16	0
7912	220	19	1595	47	30	19	0
7913	119	19	1595	47	30	19	0
7914	90	23	1934	55	35	22	3
7915	90	23	1963	56	36	23	3
7916	81	23	1963	56	36	23	3
7917	128	20	1689	48	31	19	3
7918	224	20	1689	48	31	19	3
7919	201	20	1689	48	31	19	3
7920	191	22	1873	54	34	22	0
7921	197	22	1873	54	34	22	0
7922	155	24	2063	61	38	24	3
7923	170	24	2063	61	38	24	3
7924	154	24	2063	61	38	24	3
7925	186	33	2828	82	52	32	3
7926	170	33	2828	82	52	32	3
7927	197	33	2828	82	52	32	5
7928	180	6	486	16	10	7	1
7929	195	6	486	16	10	7	0
7930	200	8	657	17	12	8	0
7931	94	8	681	17	12	8	0
7932	90	8	681	17	12	8	0
7933	86	8	681	17	12	8	0
7934	158	7	595	16	10	7	0
7935	159	7	595	17	10	7	0
7936	123	6	533	17	10	6	0
7937	148	7	578	17	10	6	0
7938	172	7	578	16	10	6	0
7939	157	7	578	16	10	6	0
7940	227	8	693	20	13	8	0
7941	191	8	693	20	13	8	0
7942	192	17	1426	50	29	17	4
7943	192	17	1426	50	29	17	4
7944	174	17	1426	50	29	18	4
7945	133	15	1262	47	28	18	4
7946	173	14	1098	44	28	18	4
7947	197	14	1098	44	28	18	4
7948	148	7	522	26	18	14	0
7949	192	7	522	26	18	14	0
7950	236	7	522	26	18	14	0
7951	196	1	84	6	3	3	0
7952	192	1	84	6	3	3	0
7953	183	1	84	6	3	3	0
7954	206	0	40	2	0	0	0
7955	192	0	40	2	0	0	0
7956	191	0	40	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7957	246	1	121	5	2	2	0
7958	178	1	121	5	2	2	0
7959	195	2	134	6	3	2	0
7960	154	2	148	7	4	2	0
7961	171	2	148	7	4	2	0
7962	139	1	87	4	2	2	0
7963	129	1	92	4	2	0	0
7964	152	1	92	4	2	0	0
7965	165	1	92	4	2	0	0
7966	163	6	468	17	12	8	0
7967	182	6	468	17	12	8	0
7968	183	6	468	17	12	8	0
7969	170	6	490	17	12	9	0
7970	194	6	512	17	12	9	0
7971	156	6	512	17	12	9	0
7972	175	6	512	17	12	9	0
7973	206	6	512	17	12	9	0
7974	162	7	543	18	12	9	0
7975	196	7	574	18	12	9	0
7976	154	11	907	28	19	14	0
7977	157	11	907	28	19	14	0
7978	180	11	907	28	19	14	0
7979	144	12	1030	31	21	15	0
7980	171	12	1030	31	21	15	0
7981	135	12	1030	31	21	15	0
7982	80	13	1094	32	22	15	0
7983	125	13	1094	32	22	15	0
7984	139	14	1208	35	24	17	0
7985	96	15	1323	38	26	18	0
7986	105	15	1323	38	26	18	0
7987	124	15	1323	38	26	18	0
7988	169	14	1206	35	24	17	0
7989	92	14	1206	35	24	17	0
7990	162	14	1206	35	24	17	0
7991	186	6	468	17	12	8	0
7992	86	6	468	17	12	8	0
7993	125	6	468	17	12	8	0
7994	119	6	490	17	12	9	0
7995	103	6	512	17	12	9	0
7996	162	6	512	17	12	9	0
7997	129	6	512	17	12	9	0
7998	138	6	512	17	12	9	0
7999	163	7	543	18	12	9	0
8000	115	7	574	18	12	9	0
8001	196	11	907	28	19	14	0
8002	168	11	907	28	19	14	0
8003	120	11	907	28	19	14	0
8004	210	12	1030	31	21	15	0
8005	168	12	1030	31	21	15	0
8006	177	12	1030	31	21	15	0
8007	240	13	1094	32	22	15	0
8008	186	13	1094	32	22	15	0
8009	154	6	468	17	12	8	0
8010	241	6	468	17	12	8	0
8011	131	6	468	17	12	8	0
8012	192	6	490	17	12	9	0
8013	157	6	512	17	12	9	0
8014	171	6	512	17	12	9	0
8015	138	6	512	17	12	9	0
8016	140	6	512	17	12	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8017	150	7	543	18	12	9	0
8018	117	7	574	18	12	9	0
8019	147	79	6682	214	129	74	23
8020	80	5	350	16	12	9	0
8021	101	3	234	11	8	6	0
8022	10	8	640	24	15	10	2
8023	15	9	738	29	20	15	2
8024	20	6	474	19	13	10	0
8025	25	8	687	26	18	14	0
8026	11	25	1975	75	59	43	4
8027	5	20	1469	66	56	42	14
8028	48	9	644	30	27	22	2
8029	20	11	827	33	28	22	4
8030	25	9	712	27	20	15	1
8031	23	5	394	15	10	8	0
8032	20	4	303	12	8	6	0
8033	37	15	1228	45	29	20	7
8034	41	15	1192	39	27	20	4
8035	41	12	1242	0	0	0	0
8036	40	18	1500	39	26	19	5
8037	28	16	1380	37	23	16	2
8038	30	15	1300	37	23	17	2
8039	25	14	1154	34	22	17	2
8040	28	14	1154	34	22	17	2
8041	24	13	1049	33	21	15	3
8042	33	12	1000	32	20	14	2
8043	44	11	900	30	18	10	2
8044	33	9	706	28	17	12	2
8045	33	7	593	24	16	11	0
8046	149	7	584	23	16	11	0
8047	118	11	881	34	22	17	3
8048	104	11	881	34	22	17	3
8049	130	11	881	34	22	17	3
8050	138	10	794	30	20	14	2
8051	123	6	504	17	12	9	2
8052	49	19	1770	25	16	12	2
8053	82	9	717	25	16	12	2
8054	97	9	717	25	16	12	2
8055	77	6	495	18	11	9	2
8056	102	5	437	16	11	7	2
8057	102	4	346	13	9	6	1
8058	77	4	346	13	9	6	0
8059	126	4	325	11	6	4	0
8060	142	4	325	12	7	4	0
8061	137	4	345	12	7	5	0
8062	95	4	358	12	7	5	0
8063	87	4	358	12	7	4	1
8064	131	4	358	12	7	4	2
8065	158	4	321	11	7	4	2
8066	121	4	321	11	7	4	3
8067	137	4	312	11	7	4	3
8068	109	4	312	11	6	4	0
8069	118	4	316	11	7	4	2
8070	110	4	316	11	7	4	2
8071	144	4	316	11	7	4	2
8072	132	4	305	11	7	4	2
8073	123	6	548	17	10	6	3
8074	123	8	652	20	13	8	3
8075	151	8	652	20	13	8	1
8076	58	10	837	30	17	11	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8077	146	10	840	29	17	11	2
8078	139	10	844	29	18	11	3
8079	72	10	847	28	18	11	2
8080	95	10	847	28	17	10	2
8081	101	10	845	27	16	10	1
8082	121	11	902	28	16	10	2
8083	115	11	913	28	16	11	2
8084	112	59	4938	151	109	66	22
8085	80	5	373	16	11	8	3
8086	100	8	605	25	18	14	6
8087	150	8	605	25	18	14	6
8088	147	9	691	27	20	14	2
8089	209	9	691	27	20	14	2
8090	208	8	650	25	17	11	2
8091	125	8	650	25	17	11	2
8092	187	15	1242	45	27	19	7
8093	185	15	1242	45	27	19	7
8094	136	15	1242	45	27	19	7
8095	140	15	1242	45	27	19	7
8096	176	9	718	25	15	11	1
8097	213	9	718	25	15	11	4
8098	177	8	698	24	15	9	4
8099	175	8	698	24	15	9	4
8100	168	8	698	24	15	9	4
8101	200	11	931	32	19	12	2
8102	238	14	1165	40	23	15	0
8103	213	14	1165	40	23	15	0
8104	153	20	1729	56	32	20	5
8105	216	20	1729	56	32	20	5
8106	196	24	2095	62	37	23	5
8107	236	30	2591	76	45	25	4
8108	200	30	2591	76	45	25	3
8109	218	30	2591	76	45	25	2
8110	168	30	2591	76	45	25	2
8111	192	18	1568	50	28	16	2
8112	213	18	1568	50	28	16	2
8113	171	26	2112	79	54	30	9
8114	190	6	504	14	8	6	3
8115	24	14	1248	32	18	11	2
8116	30	11	946	28	16	10	2
8117	73	22	1912	62	33	18	4
8118	22	23	1982	62	33	18	4
8119	102	23	1982	51	32	16	4
8120	120	22	1919	51	28	14	3
8121	144	22	1919	51	28	14	3
8122	144	37	3245	87	48	23	3
8123	144	37	3245	87	48	23	0
8124	149	94	8257	232	128	60	18
8125	171	94	8257	232	128	60	18
8126	136	94	8257	232	128	60	18
8127	119	78	6769	202	115	55	15
8128	103	98	8583	246	137	64	19
8129	79	107	9428	246	137	65	19
8130	90	107	9428	246	137	65	18
8131	111	107	9428	246	137	65	18
8132	140	109	9695	246	137	65	18
8133	86	109	9695	240	134	64	17
8134	87	107	9507	227	127	60	17
8135	116	107	9507	227	127	60	17
8136	145	76	6800	164	93	46	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8137	132	76	6800	164	93	46	1
8138	148	54	4851	108	66	34	1
8139	146	54	4851	108	66	34	1
8140	144	35	3148	78	45	24	1
8141	126	35	3148	78	45	24	2
8142	101	30	2627	65	41	20	2
8143	90	34	2961	85	53	28	7
8144	100	39	3296	105	65	36	12
8145	111	39	3280	102	60	34	11
8146	123	38	3250	100	58	31	10
8147	15	9	475	29	31	41	19
8148	20	10	547	34	37	48	23
8149	21	9	480	28	32	40	20
8150	25	9	458	26	30	40	19
8151	27	9	470	26	31	42	20
8152	23	13	748	34	42	52	22
8153	24	11	613	32	37	48	22
8154	21	12	645	32	38	52	24
8155	27	12	696	31	40	49	25
8156	11	12	684	35	39	50	23
8157	20	12	668	32	39	49	23
8158	21	12	666	30	38	50	23
8159	22	12	693	31	39	51	26
8160	35	12	668	32	36	50	22
8161	51	11	659	32	36	48	22
8162	38	11	642	29	35	47	24
8163	47	11	628	29	34	47	21
8164	49	8	495	23	25	34	16
8165	45	10	612	28	30	40	17
8166	45	11	718	31	33	42	19
8167	59	12	740	32	33	43	21
8168	50	12	732	30	31	41	21
8169	47	12	740	29	32	41	19
8170	43	12	761	29	31	40	19
8171	58	12	772	31	30	39	21
8172	58	12	774	31	30	39	20
8173	52	12	788	31	30	39	19
8174	54	12	814	28	30	40	19
8175	45	12	824	30	30	41	18
8176	59	12	808	30	28	39	19
8177	45	12	811	28	28	37	18
8178	45	12	811	28	28	37	18
8179	45	12	811	28	28	37	18
8180	41	13	861	29	30	38	19
8181	54	12	846	30	28	37	18
8182	49	12	860	29	28	36	20
8183	48	13	883	28	28	37	18
8184	45	13	883	30	28	37	20
8185	45	13	872	27	28	37	19
8186	41	13	953	30	28	38	18
8187	38	14	975	32	28	37	20
8188	46	15	1082	38	30	40	22
8189	42	14	1020	35	27	38	18
8190	37	15	1114	34	28	37	20
8191	41	16	1244	37	31	36	17
8192	38	12	886	27	26	33	18
8193	35	12	832	26	25	32	17
8194	42	12	832	25	24	31	17
8195	36	12	876	26	25	32	18
8196	47	12	888	26	25	32	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8197	75	13	923	28	26	34	18
8198	58	12	884	27	25	33	16
8199	54	12	872	28	24	33	18
8200	50	12	872	26	24	33	19
8201	44	12	890	25	24	32	18
8202	40	12	900	25	24	30	18
8203	40	13	965	27	25	33	16
8204	50	14	1072	30	27	34	19
8205	45	15	1081	30	27	35	19
8206	51	15	1081	30	27	35	19
8207	54	15	1091	30	27	35	23
8208	51	16	1184	34	29	36	18
8209	42	17	1312	37	29	36	19
8210	49	12	857	29	22	26	15
8211	26	10	746	23	20	26	16
8212	24	10	732	24	19	24	15
8213	22	13	982	33	27	32	16
8214	22	11	820	25	20	26	15
8215	58	11	820	25	20	26	15
8216	64	11	841	25	20	26	14
8217	40	12	891	26	20	24	12
8218	28	13	1019	29	22	25	15
8219	41	15	1177	34	25	25	14
8220	39	14	1064	30	22	24	14
8221	37	13	1040	29	22	25	14
8222	38	12	928	26	20	23	13
8223	41	12	905	26	20	23	14
8224	49	12	947	26	20	24	14
8225	55	12	950	27	20	24	13
8226	53	12	939	27	20	24	14
8227	46	13	1048	31	20	26	13
8228	47	15	1216	29	23	26	15
8229	36	21	1776	39	26	25	16
8230	38	26	2248	43	29	26	15
8231	56	25	2144	42	28	27	15
8232	61	23	1973	42	28	26	14
8233	55	22	1869	42	29	26	14
8234	45	18	1482	36	25	25	15
8235	56	18	1455	34	24	25	15
8236	48	17	1401	33	24	24	14
8237	46	18	1508	35	25	25	14
8238	53	18	1485	35	24	25	14
8239	44	18	1546	29	25	25	14
8240	48	19	1532	36	24	26	14
8241	50	18	1458	36	24	26	14
8242	32	18	1513	36	24	25	13
8243	49	21	1817	32	26	25	15
8244	56	25	2173	37	29	26	13
8245	46	23	1994	35	28	26	14
8246	49	21	1826	33	27	26	14
8247	43	20	1688	31	26	25	14
8248	66	22	1885	34	28	26	13
8249	46	24	2024	35	28	26	14
8250	55	23	1927	41	27	26	13
8251	51	19	1618	39	25	25	13
8252	43	19	1553	38	25	25	13
8253	65	18	1468	34	22	23	14
8254	58	17	1423	34	22	23	12
8255	59	17	1374	34	22	22	11
8256	60	15	1252	31	22	21	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8257	62	15	1244	30	20	21	12
8258	54	17	1421	33	22	22	13
8259	36	18	1536	33	23	22	12
8260	48	17	1461	27	22	22	10
8261	64	18	1486	32	22	22	13
8262	63	18	1487	33	22	22	13
8263	40	20	1723	31	24	22	14
8264	68	19	1654	34	23	23	9
8265	53	18	1542	32	23	22	12
8266	74	17	1443	33	22	21	12
8267	62	17	1424	35	22	21	12
8268	90	18	1464	36	23	22	12
8269	55	18	1481	38	23	22	12
8270	53	17	1463	37	22	22	8
8271	62	17	1463	37	22	22	7
8272	56	21	1814	45	27	24	12
8273	64	21	1814	45	27	24	12
8274	46	19	1628	41	26	22	12
8275	57	18	1524	39	25	22	13
8276	44	18	1467	37	24	21	13
8277	70	17	1417	37	24	21	12
8278	64	17	1380	37	23	21	12
8279	105	17	1373	37	23	21	11
8280	71	20	1702	45	29	25	13
8281	60	18	1511	40	26	23	12
8282	67	18	1454	39	25	21	12
8283	61	16	1301	36	23	20	12
8284	56	17	1407	35	23	21	9
8285	59	19	1649	41	26	22	10
8286	54	21	1803	45	26	22	12
8287	61	20	1717	44	26	22	12
8288	73	21	1736	46	27	24	12
8289	63	19	1613	39	25	22	12
8290	53	19	1600	38	24	21	11
8291	55	18	1500	37	22	20	10
8292	51	17	1439	37	23	20	10
8293	46	18	1523	38	25	20	11
8294	45	17	1406	36	25	19	11
8295	29	16	1364	38	22	20	11
8296	45	16	1345	38	22	20	11
8297	45	16	1345	34	22	20	11
8298	41	16	1338	37	22	21	11
8299	46	16	1304	37	22	21	12
8300	59	16	1304	37	22	21	12
8301	64	16	1326	36	23	20	11
8302	50	16	1310	39	23	20	10
8303	56	20	1604	53	32	24	12
8304	79	20	1638	51	31	23	10
8305	66	17	1404	38	24	20	8
8306	59	17	1402	40	24	18	9
8307	64	17	1436	43	25	19	10
8308	61	15	1219	37	23	18	9
8309	57	10	848	27	17	15	7
8310	65	9	696	23	15	15	8
8311	67	10	761	25	16	14	9
8312	57	10	842	27	17	15	8
8313	57	11	902	26	17	16	9
8314	64	11	907	28	17	16	9
8315	49	11	895	28	17	14	8
8316	57	12	975	32	18	16	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8317	52	14	1155	38	23	20	9
8318	46	14	1149	37	24	19	9
8319	59	13	1090	33	22	16	9
8320	43	13	1030	31	20	16	8
8321	64	13	1044	31	20	16	8
8322	68	12	1019	30	19	15	9
8323	72	13	1093	32	20	16	7
8324	60	13	1089	32	20	15	7
8325	50	13	1057	30	20	15	8
8326	56	13	1076	31	19	16	9
8327	63	14	1147	32	21	16	10
8328	68	20	1678	49	30	21	10
8329	82	32	2653	83	51	34	13
8330	64	33	2726	85	53	35	12
8331	57	27	2293	71	41	28	10
8332	80	22	1887	49	31	22	6
8333	60	22	1919	50	30	22	9
8334	57	24	2028	56	32	23	10
8335	62	26	2160	66	39	28	12
8336	56	38	3079	115	69	44	16
8337	48	49	3940	146	96	60	22
8338	56	49	3940	146	96	60	22
8339	63	32	2645	88	56	37	13
8340	61	25	2078	65	40	28	13
8341	45	20	1665	48	30	21	10
8342	41	19	1591	46	28	20	2
8343	57	18	1552	45	28	20	8
8344	69	18	1532	46	28	19	2
8345	51	18	1503	45	27	19	9
8346	74	16	1385	41	25	17	7
8347	54	17	1422	43	26	18	8
8348	64	17	1437	47	26	19	10
8349	49	20	1662	53	32	24	11
8350	50	23	1867	63	40	28	11
8351	66	25	2016	69	43	29	12
8352	45	22	1791	60	36	25	12
8353	44	18	1504	51	30	21	10
8354	50	17	1410	47	28	22	8
8355	58	17	1428	43	27	20	8
8356	49	17	1398	47	27	20	8
8357	51	16	1365	46	26	19	7
8358	61	17	1375	41	27	20	9
8359	68	17	1412	48	27	20	1
8360	126	17	1412	48	27	20	1
8361	158	17	1429	48	27	20	10
8362	97	17	1452	48	27	20	1
8363	92	18	1511	50	28	21	9
8364	64	18	1511	50	28	21	9
8365	73	19	1579	52	29	21	10
8366	81	25	2072	71	40	27	10
8367	79	61	4941	201	115	70	23
8368	69	105	8442	339	216	128	37
8369	95	99	8005	321	196	116	35
8370	47	63	5157	202	118	72	24
8371	28	49	4081	162	85	55	2
8372	44	48	3984	152	85	56	16
8373	66	42	3498	125	72	44	14
8374	62	33	2764	97	53	34	12
8375	58	27	2295	79	43	28	11
8376	72	26	2208	75	41	27	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8377	61	26	2208	75	41	27	1
8378	70	29	2443	82	45	29	12
8379	47	30	2477	86	46	30	9
8380	60	27	2241	78	42	27	10
8381	37	27	2230	78	42	27	10
8382	69	28	2371	84	45	30	0
8383	46	27	2293	77	44	29	2
8384	45	19	1579	52	29	21	10
8385	43	17	1384	48	29	20	8
8386	43	27	2293	73	44	27	11
8387	38	28	2341	77	46	29	11
8388	42	26	2144	70	43	28	12
8389	90	26	2112	70	43	28	12
8390	38	28	2346	74	47	32	11
8391	34	53	4275	172	108	68	23
8392	45	71	5631	240	149	93	31
8393	26	62	4941	222	124	80	25
8394	47	61	4871	212	127	80	26
8395	54	61	4871	212	127	80	26
8396	97	61	4871	212	127	80	26
8397	72	61	4835	208	124	77	24
8398	106	110	8736	380	241	144	40
8399	1	15	1138	52	35	27	11
8400	87	13	987	46	32	26	12
8401	74	14	994	48	33	28	12
8402	69	20	1523	73	48	36	14
8403	80	37	2866	135	84	57	19
8404	62	57	4436	192	129	83	26
8405	46	84	6565	296	192	120	37
8406	71	99	7743	358	228	141	41
8407	27	101	7887	387	228	139	40
8408	23	40	3273	116	79	51	17
8409	26	25	2059	66	46	32	12
8410	27	22	1781	57	40	29	9
8411	27	28	2305	75	51	34	13
8412	14	47	3892	130	82	51	15
8413	25	45	3793	119	79	49	16
8414	39	39	3204	108	68	45	15
8415	50	35	2898	101	64	43	15
8416	59	31	2455	97	57	41	14
8417	29	31	2522	92	63	41	13
8418	34	33	2646	101	69	46	14
8419	36	31	2473	94	65	43	16
8420	29	26	2066	80	57	39	13
8421	28	27	2130	84	60	43	14
8422	46	26	2002	79	58	40	15
8423	51	26	1998	81	60	42	15
8424	86	24	1866	76	58	42	15
8425	69	23	1747	78	55	41	16
8426	43	24	1812	84	58	44	16
8427	38	31	2384	99	74	54	20
8428	46	46	3517	154	105	74	25
8429	39	31	2362	113	73	57	19
8430	26	27	2051	96	65	50	15
8431	37	25	1892	88	61	47	16
8432	21	25	1886	86	60	47	17
8433	36	24	1815	83	57	44	16
8434	19	21	1591	74	52	41	16
8435	29	20	1475	67	50	41	15
8436	19	21	1565	73	53	45	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8437	27	22	1658	81	57	44	16
8438	39	22	1644	79	56	46	17
8439	30	22	1601	77	55	44	16
8440	37	23	1700	81	58	46	17
8441	24	22	1652	78	54	44	17
8442	44	23	1725	81	56	45	16
8443	34	24	1806	82	56	46	18
8444	57	24	1789	75	56	44	16
8445	49	24	1785	78	55	45	16
8446	26	26	1965	84	57	47	16
8447	33	26	2042	84	58	46	16
8448	38	25	1902	74	55	41	15
8449	20	21	1601	64	48	38	14
8450	44	21	1611	64	48	37	13
8451	55	22	1663	66	50	38	14
8452	47	21	1613	64	48	37	15
8453	36	20	1498	60	45	36	15
8454	28	20	1536	66	46	36	13
8455	20	22	1711	65	46	36	13
8456	35	26	2092	79	50	39	14
8457	42	31	2468	85	60	44	17
8458	55	29	2353	81	59	43	16
8459	36	46	3708	133	91	61	22
8460	39	52	4187	154	105	70	22
8461	25	65	5168	202	137	90	30
8462	78	52	4190	156	107	73	24
8463	63	42	3446	126	87	60	2
8464	23	40	3208	127	81	59	21
8465	23	36	2894	105	75	55	18
8466	35	35	2740	106	72	54	18
8467	46	31	2381	95	65	50	18
8468	60	30	2317	97	62	49	18
8469	47	34	2696	109	71	52	17
8470	49	32	2523	101	65	49	18
8471	28	39	3096	130	82	59	18
8472	31	42	3321	134	85	60	21
8473	43	36	2824	114	74	54	19
8474	51	33	2576	96	68	51	20
8475	45	33	2623	100	70	52	18
8476	43	32	2536	98	68	54	18
8477	52	28	2154	91	57	47	17
8478	44	26	2005	79	54	44	16
8479	53	26	2093	80	55	44	2
8480	40	25	1970	74	52	39	15
8481	53	28	2154	91	57	47	17
8482	48	26	2005	79	54	44	16
8483	58	28	2177	87	58	43	16
8484	68	27	2152	86	58	44	15
8485	40	28	2177	87	58	43	16
8486	52	28	2254	80	58	44	17
8487	48	26	2013	78	54	44	15
8488	34	37	2955	112	71	53	17
8489	27	37	2955	112	71	53	17
8490	39	28	2233	87	55	42	15
8491	58	25	1954	71	51	38	15
8492	44	21	1652	61	46	35	12
8493	47	22	1708	61	46	35	13
8494	34	54	4347	167	101	67	21
8495	39	21	1640	59	45	36	16
8496	44	14	1002	43	37	33	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8497	49	13	939	42	37	34	15
8498	49	13	901	42	34	32	14
8499	44	13	967	43	34	32	0
8500	56	14	1040	42	36	33	12
8501	58	15	1109	46	37	34	13
8502	50	17	1282	55	41	35	14
8503	45	19	1382	56	46	39	16
8504	36	20	1504	64	52	44	0
8505	58	19	1428	58	46	40	14
8506	37	18	1337	56	40	36	16
8507	41	19	1400	52	42	37	15
8508	55	18	1362	51	41	35	14
8509	58	19	1426	52	42	36	14
8510	54	19	1401	51	41	36	16
8511	52	18	1365	49	40	35	14
8512	59	18	1404	49	41	35	13
8513	55	17	1340	47	37	32	13
8514	42	17	1341	46	37	32	14
8515	30	19	1511	51	39	33	14
8516	47	18	1497	49	37	31	0
8517	38	24	1930	60	41	33	13
8518	49	23	1927	54	38	31	13
8519	40	22	1781	51	36	31	11
8520	37	19	1544	46	32	29	12
8521	41	28	2407	54	40	31	4
8522	37	41	3581	60	48	34	14
8523	29	74	6787	99	71	44	14
8524	46	57	5115	83	64	42	15
8525	33	45	4002	71	56	38	16
8526	39	42	3664	68	56	40	15
8527	52	40	3428	68	56	40	15
8528	77	36	3093	79	53	39	14
8529	55	34	2882	76	50	38	14
8530	77	31	2561	72	48	37	14
8531	55	28	2286	66	44	34	15
8532	92	27	2209	70	43	36	14
8533	56	29	2488	68	46	36	0
8534	78	57	5156	76	61	37	12
8535	65	54	4860	90	58	38	14
8536	71	51	4557	76	60	40	16
8537	61	43	3740	77	54	37	13
8538	68	43	3740	77	54	37	13
8539	63	30	2531	59	43	32	12
8540	62	30	2531	59	43	32	12
8541	55	28	2382	59	44	33	13
8542	52	25	2109	53	39	31	11
8543	53	26	2141	55	40	30	12
8544	56	24	2012	52	38	30	12
8545	73	23	1940	50	36	28	13
8546	45	24	2035	55	38	29	12
8547	71	24	1996	55	37	29	12
8548	66	23	1910	54	36	28	12
8549	49	22	1803	48	33	27	11
8550	41	23	1890	52	34	28	11
8551	75	22	1851	53	34	28	10
8552	60	23	1886	54	36	28	11
8553	81	21	1715	47	33	25	9
8554	65	21	1715	47	33	25	9
8555	70	21	1742	48	33	26	9
8556	58	22	1828	51	36	27	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8557	64	24	1989	55	38	28	11
8558	40	23	1941	54	38	28	12
8559	36	23	1938	52	36	27	13
8560	48	24	1998	53	36	27	12
8561	39	21	1763	43	32	25	11
8562	49	20	1633	42	30	24	10
8563	37	19	1579	42	29	24	11
8564	57	19	1595	46	31	25	10
8565	45	18	1482	44	29	25	10
8566	43	17	1425	38	28	22	9
8567	32	18	1488	42	29	24	10
8568	58	20	1664	46	33	26	10
8569	38	17	1397	40	28	22	2
8570	63	21	1766	49	34	27	11
8571	40	20	1644	45	32	25	11
8572	67	18	1507	41	29	23	10
8573	43	17	1425	38	28	22	9
8574	83	18	1488	42	29	24	10
8575	58	20	1664	46	33	26	10
8576	75	23	1931	51	34	26	12
8577	62	26	2249	58	37	27	12
8578	93	28	2372	59	37	27	11
8579	47	28	2372	59	37	27	12
8580	51	24	2062	48	34	25	11
8581	35	24	2062	48	34	25	11
8582	39	24	2017	45	34	25	11
8583	34	20	1715	42	29	23	9
8584	38	19	1635	40	28	22	9
8585	33	19	1563	42	27	21	9
8586	38	19	1563	42	27	21	9
8587	39	18	1527	42	27	21	10
8588	26	56	4813	136	84	48	16
8589	46	32	2688	80	51	34	12
8590	113	25	2117	65	40	28	12
8591	73	39	3323	98	57	40	13
8592	47	39	3323	98	57	40	13
8593	35	31	2628	76	47	33	11
8594	49	25	2044	59	40	29	11
8595	103	20	1636	48	33	24	10
8596	53	19	1549	45	30	21	10
8597	50	19	1549	45	30	21	10
8598	77	16	1325	39	26	18	7
8599	86	24	2019	60	38	24	10
8600	93	24	2019	60	38	24	10



FLUORESCENCE DATA RECORD

WELL: LO6-28D



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.
5440 - 5450	RIO BRAVO		X					PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5450 - 5460	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5460 - 5470	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5470 - 5480	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5480 - 5490	RIO BRAVO						15	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5490 - 5500	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5500 - 5510	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5590 - 5600	RIO BRAVO		X					PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5600 - 5610	RIO BRAVO		X					PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5610 - 5620	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5620 - 5630	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5630 - 5640	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5640 - 5650	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5650 - 5660	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5660 - 5670	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5670 - 5680	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5680 - 5690	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5690 - 5700	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5700 - 5710	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5710 - 5720	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

WELL: LO6-28D



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.
5720 - 5730	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5730 - 5740	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5740 - 5750	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5750 - 5760	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5890 - 5900	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5900 - 5910	RIO BRAVO						30	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5910 - 5920	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5920 - 5930	RIO BRAVO						20	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5930 - 5940	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5940 - 5950	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5950 - 5960	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
5960 - 5970	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6240 - 6250	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6250 - 6260	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6260 - 6270	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6270 - 6280	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6280 - 6290	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6290 - 6300	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6320 - 6330	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6340 - 6350	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

WELL: LO6-28D

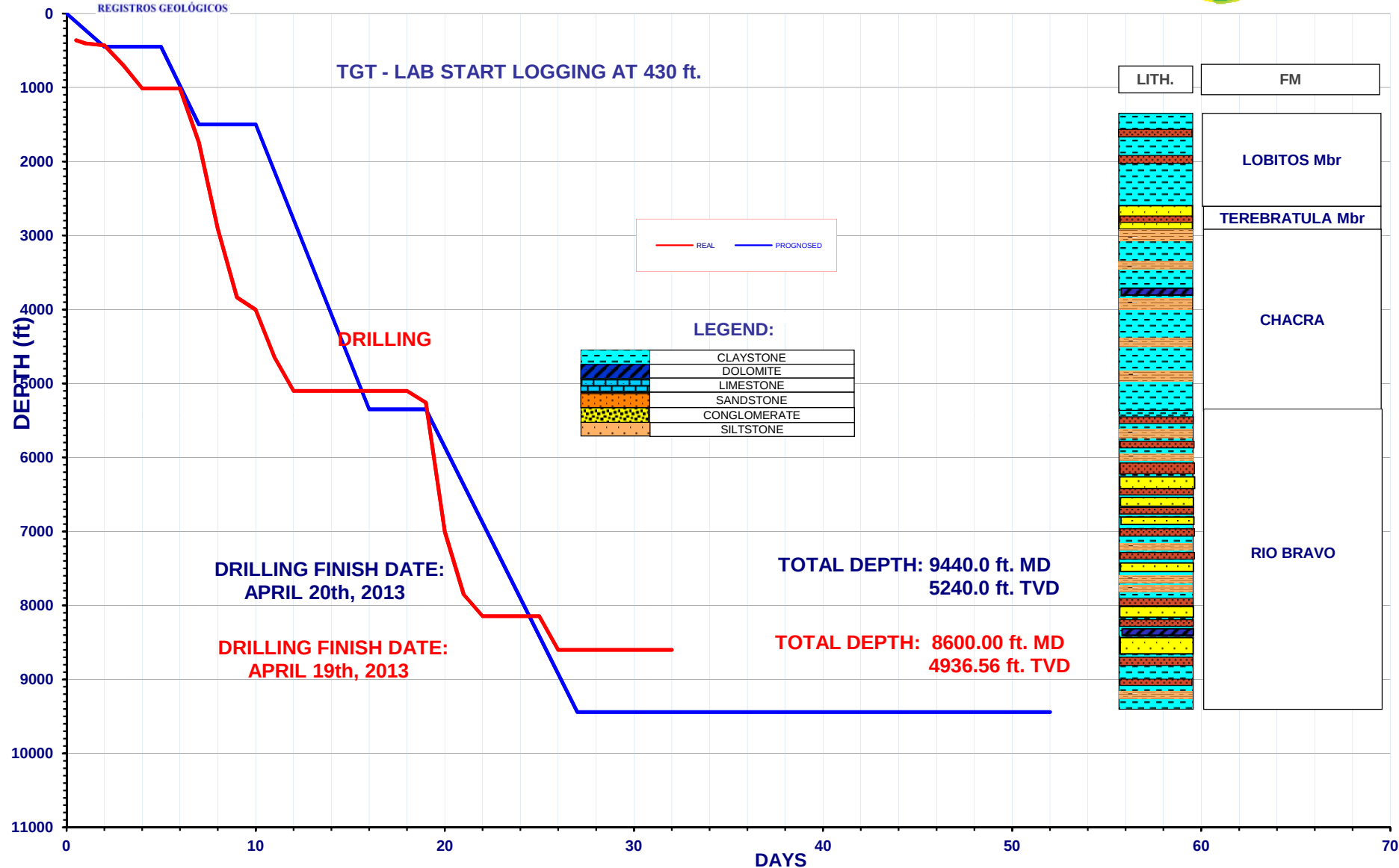


INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6350 - 6360	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6360 - 6370	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6370 - 6380	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6380 - 6390	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6470 - 6480	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6480 - 6490	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6490 - 6500	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6500 - 6510	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6510 - 6520	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6520 - 6530	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6530 - 6540	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6540 - 6550	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6550 - 6560	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6560 - 6570	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
6570 - 6580	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
7490 - 7500	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
7500 - 7510	RIO BRAVO						10	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
7510 - 7520	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
7520 - 7530	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL
7530 - 7540	RIO BRAVO						5	PAL YEL		X				X			X			X			YELSH WH	MKY WH	NIL

[illegible]



DRILLING PROGRESS CURVE WELL : LO6-28D





BIT RECORD



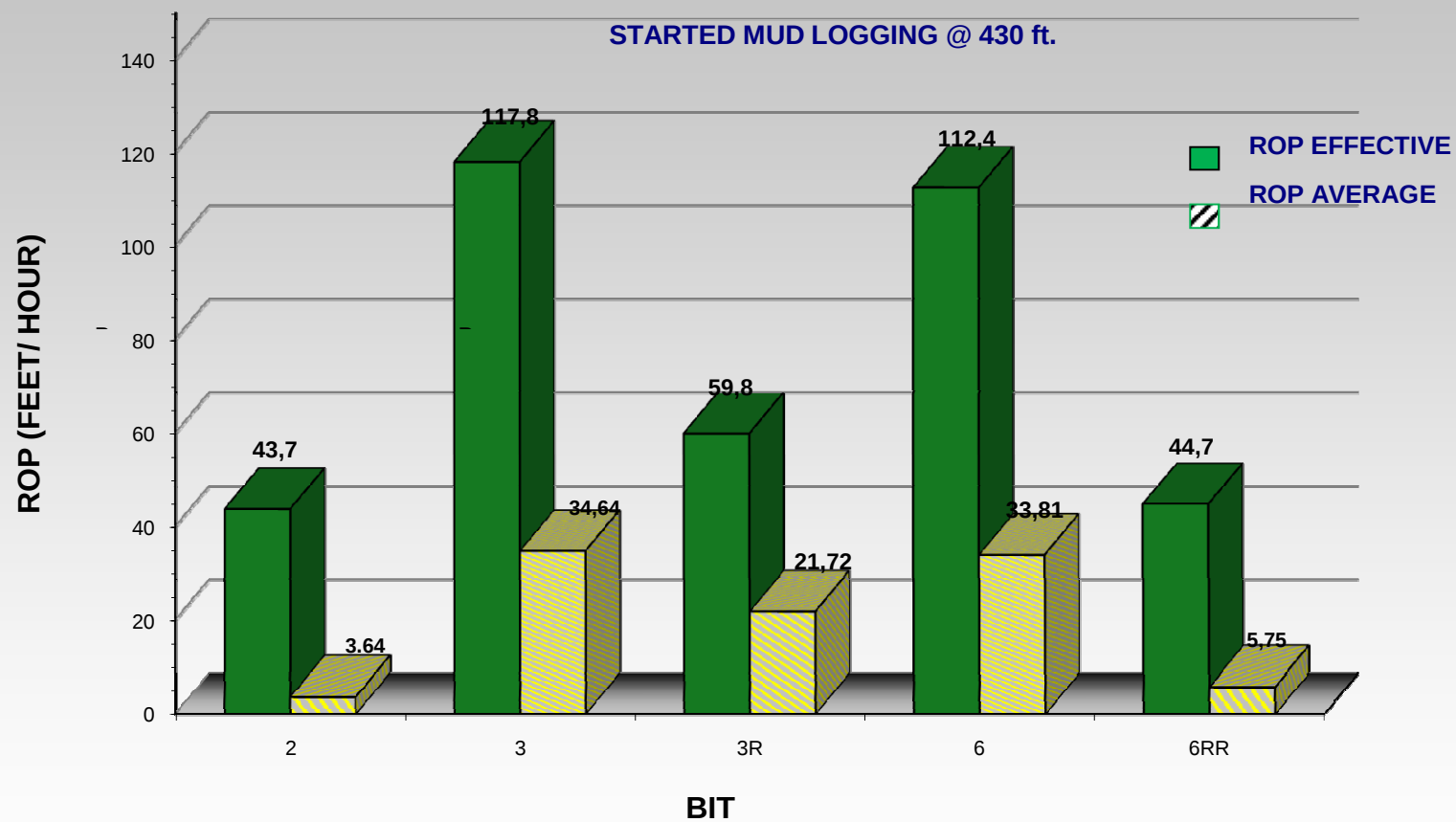
WELL: LO6-28D

* STARTED MUD LOGGING @ 430 ft.

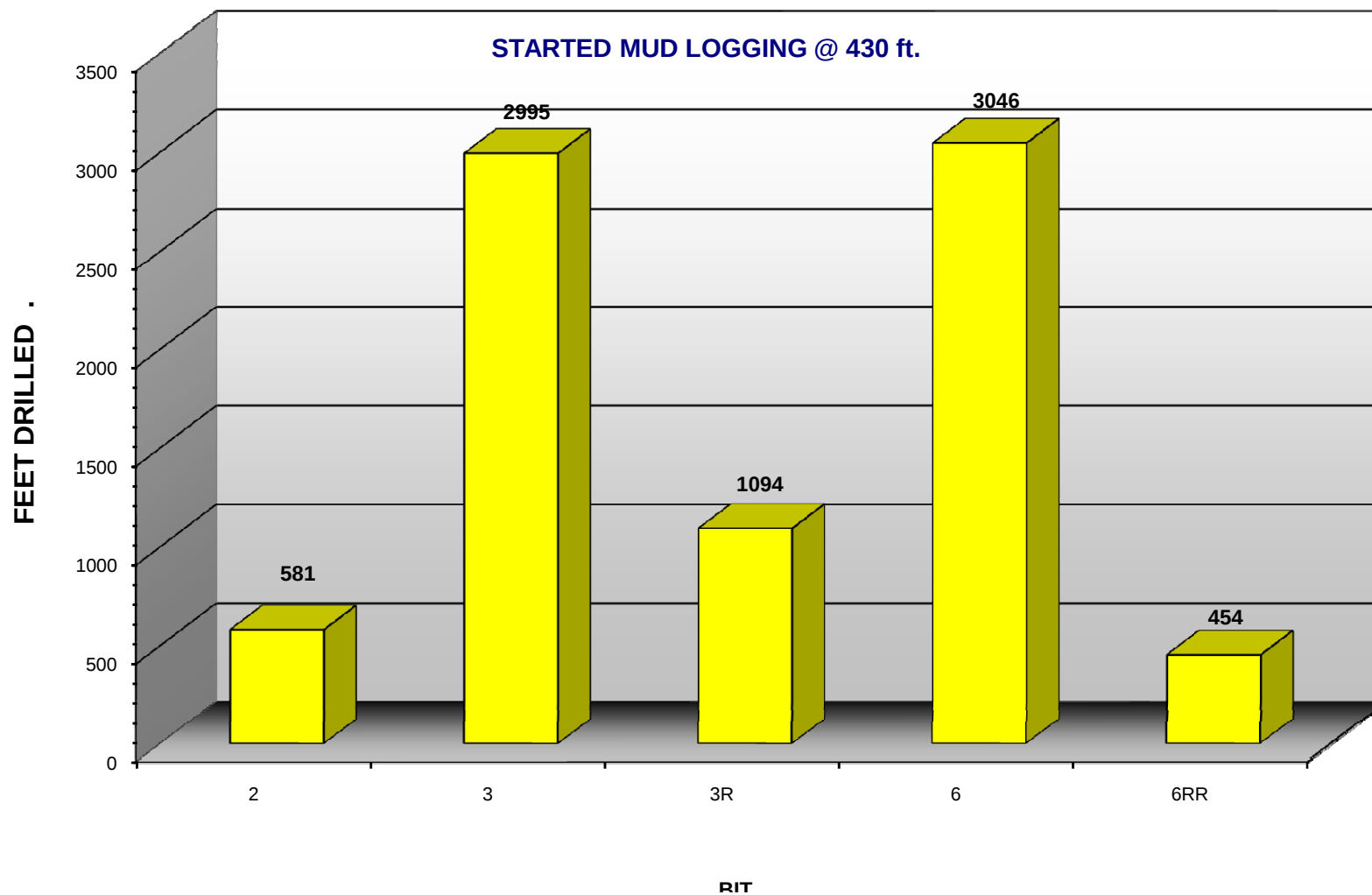
BIT	SIZE	MAKE	TYPE	SERIAL	DEPTH		HOLE	ROP Effective	HOURS	HOURS	JETS	GPM/PSI	WOB/RPM Klbs / rpm	IADC
	IN				IN	OUT	Made	M/HR	Total	Drilling				
2	17	SMITH	S519MHPX	JF6358	430	1011	581	43,7	159,4	13,3	8X9;4X10	750/1680	10-20/65	0-1-WT-G-X-I-NO-TD
3	12 1/4	HALLIBURTON	FX56S	1188389	1011	4006	2995	117,8	86,5	25,4	6X14	720/2300	8-12/60	1-2-CT-G-X-I-RR-DMF
3R	12 1/4	HALLIBURTON	FX56S	1188389	4006	5100	1094	59,8	50,4	18,3	6X14	730/3100	10-15/65	-
6	8 1/2	NOV	SKHE519M	A173903	5100	8146	3046	112,4	90,1	27,1	7X13	520/2730	15-27/60	1-1-CT-G-X-I-NO-DTF
6RR	8 1/2	NOV	SKHE519M	A173903	8146	8600	454	44,7	79,0	10,2	7X13	520/2250	10-20/60-75	1-1-CT-G-X-NO-TD

FORMATIONS:	MD (ft)	TVD (ft)
LOBITOS Mbr	0	0,0
TEREBRATULA Mbr	2335	1856,2
CHACRA	2587	1981,3
RIO BRAVO	5040	3203,3
PALEGREDA	-	-
TD	8600	4936,6

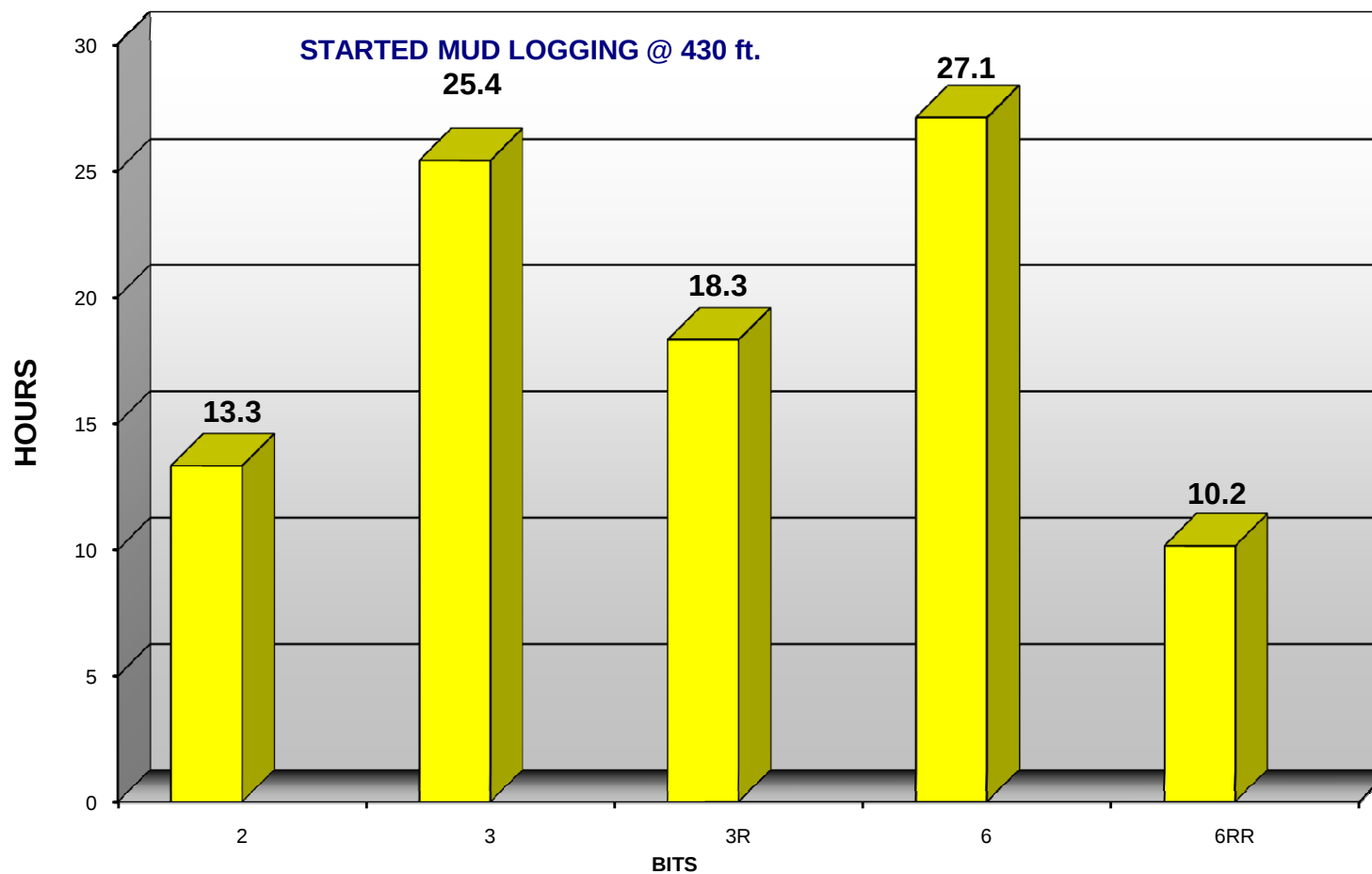
WELL : LO6-28D
**EFFECTIVE AND AVERAGE RATE OF
PENETRATION BY BIT (ft/hr)**



WELL : LO6-28D
FEET DRILLING BY BIT



WELL : LO6-28D
EFFECTIVE DRILLING HOURS



DAILY OPERATIONS REPORTS

WELL: LO6-28D

March 25th, 2013

00:00 - 05:00	Continue TIH 18" conductor joint #9, to 361 ft.
05:00 - 07:00	Pepesa weld 18" conductor joint # 10. to 389 ft.
07:00 - 10:00	Welders install 1" flat iron around 18" conductor.
10:00 - 11:00	Center conductor on 2nd level, weld square support.
11:00 - 11:30	Weld 3 stops on conductor.
11:30 - 15:30	M/U 17" tricone bit, jet sub, 1 DC, undergauge stabilizer, 2 DC. Gyrodata arrived to location, prepare tools.
15:30 - 16:30	Install 5" pup joint. Running Gyrodata tool with Pepesa wire line unit. Pull out Gyro tool. Survey @ 383 ft, incl 6.83 deg, azm 225.45 deg.
16:30 - 18:00	Prepare wire lines, Take confirmation survey. Second run Gyro tool take survey. Pull out Gyro tool. Survey @ 383 ft, incl 6.72 deg, azm 227.02 deg.
18:00 - 18:30	L/D wirelines unit and 5" pup joint, connect 5" stands.
18:30 - 23:00	Spud date 25-03-13, 18:30 hrs. Drill w/ 17" tricone bit, wash and run 18" conductor from 389' to 400'. gpm 520, pres 500 psi, 100 rpm.
23:00 - 00:00	Drill w/ 17" tricone bit from 400' to 405'. wash formation up/down, 600 gpm, no break circulation, return inside conductor.

March 26th, 2013

00:00 - 01:00	Continue washing formation w/ string up/down, 650 gpm, conductor no slide. No break circulation.
01:00 - 02:00	Perform maneuver to put weight on 18" conductor w/ string. Conductor slide 2 ft. to 402 ft.
02:00 - 02:30	Drill with 17" tricone bit from 405' to 408'. 670 gpm.
02:30 - 03:30	Wash formation with drill string up/down. conductor no slide. No break circulation.
03:30 - 04:30	Perform maneuver to put weight on 18" conductor w/ string. Conductor slide 1 ft. to 403 ft. Total conductor penetration in formation 14 ft.
04:30 - 05:30	Wash formation w/ string up/down, 670 gpm. conductor no slide.
05:30 - 06:00	Perform maneuver to put weight on 18" conductor w/ string. Conductor slide 3 ft. to 406 ft. Total conductor penetration in formation 17 ft.
06:00 - 06:30	Drill with 17" tricone bit from 408' to 413'. 650 gpm.
06:30 - 07:30	Wash formation w/ string up/down, 670 gpm. conductor slide 2 ft.
07:30 - 08:00	Perform maneuver to put weight on 18" conductor w/ string. Conductor slide 3 ft. to 410 ft. Total conductor penetration in formation 21 ft.
08:00 - 08:30	Drill with 17" tricone bit from 413' to 418'. 650 gpm.
08:30 - 09:30	Wash formation w/ string up/down, 650 gpm.
09:30 - 10:00	Perform maneuver to put weight on 18" conductor w/ string. Conductor slide 1 ft. to 411 ft. Total conductor penetration in formation 22 ft.
10:00 - 10:30	Pull out 5" stand, and connect pup joint. Prepare wirelines unit.
10:30 - 11:30	Run Gyrodata tool. Take survey. Pooh Gyro tool. Survey @ 412 ft, inc 5.43 deg, azm 234.86 deg.
11:30 - 13:00	L/D pup joint and connect 5" stand. Drill w/ 17" tricone bit, from 418' to 430', to discard junk in hole, 500 gpm, pres 433 psi, 65 rpm, 2 kft-lb. Divers ROV arrived to location to perform inspection



13:00 - 15:00 Circulate, Pooh 17" BHA from 430 ft to surface. Vessel Katty, Divers ROV perform inspection to LO6-28D conductor; 18" conductor is inside jacket elevation.
Its supported in 2 points, 5th & 6th elevations to southeast side of platform. Has a natural inclination by positioning toward the platform structure. 18" conductor has no damage or breakages.

15:00 - 17:00 Center 18" conductor on first level of platform, to align with rotary table, prior to weld stops.

17:00 - 19:00 Pepesa welders secure conductor on first level with 8 pads.

19:00 - 00:00 Cut 18" conductor and bevel on 1st level. Weld 21 1/4" flange adapter to 18".

March 27th, 2013

00:00 - 01:00 Continue installing 21 1/4" BOP diverter and 8" vent line.

01:00 - 01:30 Perform 21 1/4" diverter operative test open/close: 34/40 sec, ok. Remote control test of 8" neumatic valves, ok.

01:30 - 04:30 Install Bell Niple on 21 1/4" diverter and condition flowline discharge according to postion, install flowline. Perform maneuver to align bell nipple with rotary table and weld tops.

04:30 - 05:30 M/U 16" magnet and RIH to 430 ft, Pooh, recover 1/4 debris.

05:30 - 07:00 2nd run magnet, work magnet at 430 ft, Pooh. No debris, clean. L/D magnet and prepare to run 17" BHA.

07:00 - 09:00 M/U and measure and calibrate directional tools. Prepare drilling table to R/U tools.

09:00 - 09:30 Pepesa rig services.

09:30 - 16:00 M/U directional tools, 17" PDC bit Type S519MHPX, jets 8x9; 4x10. Mud motor 9 5/8" BH 1.5, cross over, UBHO, 2x8" flex monel, 1 DC 8", 8" jat, 2 DC 8", cross over, 1 DC 6.5", crossover, HWDP. to 377

16:00 - 16:30 Perform safety meeting with all crew on location.

16:30 - 17:00 Take Gyrodata survey @ 377 ft, incl 5.88 deg, azm 227.51 deg.

17:00 - 17:30 Dir. drill w/ 17" PDC bit, rotating & sliding from 430' to 514'. WOB 16klbs, 650 gpm, pres 1150 psi. Circulate and pump vis pill to clean.

17:30 - 18:00 Take Gyrodata survey @ 468 ft, incl 7.48 deg, azm 222.17 deg.

18:00 - 20:30 Dir. drill rotating & sliding from 514' to 606'. WOB 18 klbs, 660 gpm, pres 1242 psi. Circulate and pump 50 bbls vis pill to clean.

20:30 - 21:30 Take Gyrodata survey @ 559 ft. no record azimuth data. Perfom 2nd run Gyro survey, no record azimuth data. Ream string up/down and circulate.

21:30 - 22:00 Take Gyrodata survey @ 559 ft. incl 10.53 deg, azm 217.70 deg.

22:00 - 23:00 Dir. drill sliding 606' to 653', WOB 14 klbs, 700 gpm, pres 1430 psi.

23:00 - 00:00 Dir. drill rotating from 653' to 698'. WOB 22 klbs, 720 gpm, pres 1400 psi, 55 rpm, TQ 4/5 kft-lb. drill without return to surface.

March 28th, 2013

00:00 - 00:30 Pump 50 bbls vis pill. Take Gyro survey @ 653', incl 14.4 deg, azm 214.86 deg.

00:30 - 01:00 Dir. drill sliding w/ 17" PDC bit from 698' to 723'. WOB 11 klbs, 730 gpm, pres 1505 psi. Drill without return to surface.

01:00 - 01:30 Dir. drill rotating from 723' to 790'. WOB 20 klbs, 750 gpm, pres 1500 psi, 65 rpm.

01:30 - 02:00 Ream and condition hole. pump 40 bbls vis pill. Drill without return to surface.

02:00 - 02:30 Take Gyrodata survey @ 747 ft, incl 17.73 deg, azm 212.90 deg.



02:30 - 03:00	Dir. drill sliding from 790' to 805'. WOB 13 klbs, 750 gpm, pres 1618 psi.
03:00 - 03:30	Dir. drill rotating from 805' to 885'. WOB 19 klbs, 750 gpm, pres 1660 psi. drill without return to surface.
03:30 - 04:00	Ream and condition hole. Pump 40 bbls vis pill.
04:00 - 04:30	Take Gyrodata survey @ 843', incl 20.21 deg, azm 211.48 deg.
04:30 - 05:00	Dir. drill sliding from 885' to 910'. WOB 10 klbs, 740 gpm, pres 1537 psi.
05:00 - 05:30	Dir. drill rotating from 910' to 981'. WOB 17 klbs, 740 gpm, pres 1600 psi, 60 rpm, TQ5/6 Kft-lb.
05:30 - 06:00	Ream and condition hole. Pump 40 bbls vis pill. Drill without return to surface.
06:00 - 06:30	Take Gyrodata survey @ 934', incl 23.51 deg, azm 211.62 deg.
06:30 - 07:00	Dir. drill sliding from 981' to 1011'. WOB 15 klbs, 740 gpm, pres 1580 psi.
07:00 - 08:00	Circulate with sea water, pump vis pill, clean hole.
08:00 - 12:00	Pooh directional BHA w/ 17" PDC bit from 1011' to surface. L/D directional tools.
12:00 - 16:00	M/U and RIH slick BHA w/ 17" tricone bit from surface to 1011 ft. prepare to circulate.
16:00 - 16:30	Circulate with sea water, pump vis pill, continue cleaning hole.
16:30 - 17:00	Pump 200 bbls vis pill, 9.5 ppg and spot in 17" open hole.
17:00 - 19:00	Pooh slick BHA w/ 17" tricone bit. Weld shoe and valve to 13 3/8" casing.
19:00 - 20:00	R/U SERTONG equipment ,remove saver sub, install links on top drive, install hydraulic tongs.
20:00 - 20:30	Perform safety meeting to run 13 3/8" casing with Sertong and Pepesa crew.
20:30 - 00:00	Run 13 3/8" surface casing. (Made in Mexico, 54.5 ppf, K-55, BTC.) from surce to 1011 ft. Last 2 joint with circulation. (Total: 27 joints x 13 3/8" csg).

March 29th, 2013

00:00 - 02:30	Vessel Medomack arrived to location, position next to Perla Barge. Halliburton rig up cement lines. Circulate bottoms up with 250 gpm, 200 psi. R/D Sertong hydraulic tong and power units.
02:30 - 03:30	Stop pump L/D circulation head, R/U Halliburton cement head, continue circulate.
03:30 - 04:00	Safety & operational meeting with all personnel : Halliburton, Pepesa, TGT lab and Savia. while circulate.
04:00 - 07:00	Halliburton fill cmt lines with water and test lines w/ 2000 psi. drop bottom plug. pump 15 bbls 8.4 ppg mud flush, Tuned spacer 25 bbls. Mix and prepare cement. Pump lead slurry Econocem : 12,5 ppg, 107 bbls. Pump tail cement 88 bbls, 15.2 ppg. Stop pumping and drop top plug. Displace with sea water, return water to surface, top plug arrived with 250 psi, increase pressure to 720 psi, ok. back flow 1 bbls, float valve ok. 13 3/8" casing shoe depth at 1011 ft.
07:00 - 08:30	L/D Halliburton cement head, and prepare 1 1/4" rods, to perform Top Job.
08:30 - 09:30	RIH 1 1/4" rods from surface to 150 ft between 18" conductor and 13 3/8" casing.
09:30 - 10:00	Halliburton pump 25 bbls cement 15.6 ppg, at 2 & 1 bpm. No return to surface.
10:00 - 11:00	WOC, pull out 1 1/4" rods and clean w/ sea water.
11:00 - 11:30	Second run 1 1/4" rods from surface to 150 ft, between 18" conductor and 13 3/8" casing.
11:30 - 12:30	Halliburton pump 35 bbls cement 15.6 ppg, at 2 & 1 bpm. No return to surface.
12:30 - 13:00	Pull out 1 1/4" rods and clean w/ sea water.
13:00 - 14:30	WOC. Pepesa move material from platform to barge.
14:30 - 15:00	Run 1 1/4" rods from surface to 155 ft. Pump sea water, return 17 bbls.

15:00 - 16:00	Halliburton prepare 25 bbls cement 15.6 ppg to pump in annular. Pump 25 bbls cement 15.6 ppg, return 9 bbls cement 14.2 ppg.
16:00 - 21:00	Halliburton R/D cement lines. Pepesa welder open window on 18" csg, cut and weld ring between 18" conductor and 13 3/8" csg, in progress. Cut 13 3/8" csg, L/D bell nipple. N/D diverter.
21:00 - 00:00	Weld and bevel on 13 3/8" csg & condition to install 13 3/8" x 13 5/8" x 3M casing head type Slick lock.

March 30th, 2013

00:00 - 00:30	Perform slick lock test with 900 psi, 10 min, ok.
00:30 - 03:00	Install 13 3/8" x 11" x 3M extension, install 13 3/8" x 5M drilling Spool, secure bolts.
03:00 - 08:30	N/U 13 5/8" x 5M double ram BOP Hydrill, tighten bolts. N/U 13 5/8" x 5M annular preventer Hydrill.
08:30 - 11:00	Install 5" pipe rams in 13 5/8" BOP. Prepare hydraulic pump to perform 13 5/8" BOP test.
11:00 - 11:30	M/U and install plug tester with 5" DP.
11:30 - 12:00	Pepesa Rig Service.
12:00 - 13:00	Pepesa repair 2" stand pipe valve.
13:00 - 19:00	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. Pressure test Blind rams & HCR hydraulic valve with 300/3000 psi x 10 min. ok.
19:00 - 22:00	Pepesa continue Rig up 5" DP from barge to Platform, take serial number and measure.
22:00 - 23:00	Tight bolt to belt nipple, Pepesa welder finishing to weld flow line, and make seal below drilling table.
23:00 - 00:00	M/U HWDP in stands and 5" DP in stand.

March 31st, 2013

00:00 - 04:30	Continue M/U HWDP in stands and 5" DP in stands. Prepare drilling table to run 12 1/4" BHA.
04:30 - 05:00	Perform safety meeting with Phoenix and Pepesa crew.
05:00 - 10:00	M/U dir. BHA w/ 12 1/4" PDC bit (jet 6x14, FX45S), mud motor 12 1/8" sleeve BH1.5, 8" monel, UBHO, MWD, 8" DC, Cross over, 6 1/2" DC, cross over, 18x5" HWDP, Jar, 6x5" HWDP, 5" DP.
10:00 - 10:30	Continue TIH directional BHA w/ 12 1/4" PDC bit, Tag Top of cement at 967 ft.
10:30 - 11:00	Perform fire drill (simulacro) with all personnel on location, platform and barge. ok.
11:00 - 12:00	Drill out cement f/ 967' to 996'. drill out top and bottom plug & float collar. With 650 gpm, 1500 psi, 65 rpm, WOB 10 klbs, TQ 4 klb-ft.
12:00 - 12:30	Perform casing test with 1000 psi, ok.
12:30 - 13:00	Drill out cemento from 996' to 1009'. WOB 9 klbs, pres 1500 psi, 640 gpm.
13:00 - 13:30	Displace sea water for mud 9.5 ppg.
13:30 - 14:00	Drill out cement from 1009' to 1011'. Dir. drill rotating formation from 1011' to 1022'. WOB 9 klbs, pres 1400 psi, 630 gpm. Circulate, Geology confirm 100% formation, ok.
14:00 - 14:30	Perform Formation Integrity Test (FIT) with MW 9.5 ppg. EMW 13.0 ppg. 180 psi, at 1005 ft TVD.

14:30 - 15:00 Dir. drill rotating from 1022' to 1050'. WOB 14 klbs, 600 gpm, pres 1700 psi, 60 rpm, TQ 4,5 kft-lb.

15:00 - 17:30 Accumulate dir. drill sliding from 1050' to 1271'. WOB 10/15 klbs, 700 gpm, 1550 psi.

17.30 - 19:00 Accumulate ream, circulate, connections and surveys.

19:00 - 23:30 Accumulate dir. drill rotating from 1271' to 1741'. WOB 16 klbs, pres 1650 psi, 750 gpm, 60 rpm, TQ 4/6 kft-lb.

23:30 - 00:00 Circulate, pump vis pill, clean annular. Last survey @ 1676', incl 49.20 deg, azm 215.20 deg. Geology sample, FM Talara (Lobitos) @ 1730', 50% sand, 40% sandstone, 10% claystone. MW: 9.6 ppg.

April 01st, 2013

00:00 - 00:30 Circulate and condition hole. MW: 9.6 ppg.

00:30 - 01:30 Accumulate dir. drill sliding from 1741' to 1834'. WOB 15 klbs, 700 gpm, 1750 psi.

01:30 - 04:30 Accumulate dir. drill rotating from 1834' to 2220'. WOB 16 klbs, pres 1900 psi, 750 gpm, 60 rpm, TQ 6 kft-lb.

04:30 - 05:30 Accumulate ream, circulate, connections and surveys.

05:30 - 06:00 Circulate, pump vis pill, clean annular. Last survey @ 2056', incl 60.60 deg, azm 215.90 deg. Geology sample FM Talara (Lobitos), @ 2180', 100% claystone.

06:00 - 07:30 Halliburton condition mud and add clayseal to inhibit mud. Move string up/down while Pepesa clean clay in bosom belly and shaker pits.

07:30 - 08:00 Dir. drill sliding from 2220' to 2262'. WOB 15 klbs, pres 1800 psi, 700 gpm.

08:00 - 10:30 Dir. drill rotating from 2262' to 2501'. WOB 16 klbs, pres 1850 psi, 750 gpm, 65 rpm, TQ 6 kft-lb.

10:30 - 12:00 Circulate, obtain geology sample, FM Talara (Lobitos) 100% claystone. Pump vis pill, circulate bottom up. Survey at 2436', inc 60.5 deg, azm 215.1 deg.

12:00 - 16:00 Perform wiper trip. Pull out from 2501' to 1011'. TIH back to bottom 2501'. Without pump, free.

16:00 - 17:00 Circulate bottoms up, show a lot cutting from shaker, continue circulating, shaker clean, ok.

17:00 - 17:30 Accumulate dir. drill sliding from 2501' to 2541'. WOB 13 klbs, pres 2200 psi, 700 gpm.

17:30 - 23:00 Accumulate dir. drill rotating from 2541' to 2909'. WOB 16 klbs, pres 2200 psi, 750 gpm, 65 rpm, TQ 6/7 kft-lb.

23:00 - 00:00 Accumulate ream, circulate, connection and surveys. Top of Chacra FM at 2587'.

April 02nd, 2013

00:00 - 01:00 Accumulate dir. drill sliding from 2909' to 2923'. WOB 16 klbs, pres 720 psi, 2250 psi.

01:00 - 05:00 Accumulate dir. drill rotating from 2923' to 3252'. WOB 17 klbs, pres 2250 psi, 750 gpm, 65 rpm, TQ 6/7 kft-lb.

05:00 - 06:00 Accumulate ream, circulate, connections and surveys. Last survey at 3095', incl 60.8 deg, azm 215.3 deg. Geology sample, FM Chacra. @ 3140', 80% claystone, 20% siltstone. Pump vis pill every 300 ft.

06:00 - 07:30 Accumulate dir. drill sliding from 3252' to 3306'. WOB 15 klbs, pres 2350 psi, 700 gpm.

07:30 - 14:00 Accumulate dir. drill rotating from 3306' to 3642'. WOB 16 klbs, pres 2480 psi, 735 gpm, 65 rpm, TQ 6/7 kft-lb.

14:00 - 15:00	Accumulate ream, circulate, connections and surveys. Survey @ 3563', incl 60.5 deg, azm 213.9 deg. Geology sample FM Chacra, @ 3620', 70% claystone, 30% siltstone. Pump vis pill, every 300 ft.
15:00 - 19:00	Accumulate dir. drill rotating from 3642' to 3818'. WOB 15 klbs, pres 3050 psi, 730 gpm, 68 rpm, TQ 7 kft-lb.
19:00 - 21:30	Pull out 2 stands with circulation. Clean bosom belly on 2nd level. TIH back to bottom, circulate, pump 30 bbls vis pill, clean annular.
21:30 - 00:00	Dir. drill sliding from 3818' to 3835'. WOB 15 klbs, pres 2880 spi, 700 gpm. Last survey @ 3753' incl 60.10 deg, azm 214.30 deg. Geology sample FM Chacra, at 3830', 80% claystone, 20% siltstone.

April 03rd, 2013

00:00 - 02:00	Dir. drill rotating from 3835' to 3933'. WOB 15 klbs, pres 3080 psi., 710 gpm, 65 rpm, TQ 7 kft-lb.
02:00 - 02:30	Ream and take survey.
02:30 - 03:00	Prepare to drill, observe pressure increase from 3080 psi to 3350 psi, with 680 gpm.
03:00 - 04:30	Pump Vis pill and circulate bottom up. MW 10.2 ppg. Clean annular, pressure 3200 psi.
04:30 - 06:00	Dir. drill rotating from 3933' to 4006'. WOB 15 klbs, press 3340 psi and increase to 3330 psi, 680 gpm, 75 rpm, TQ 7 kft-lb. Survey @ 3848', incl 59.6 deg, azm 214.1 deg. Geology sample @ 3950', 70% c
06:00 - 09:00	Ream and circulate to clean annular. Pump 30 bbls vis pill, circulate bottoms up, shakers clean, ok. Pepesa clean possum belly and shakers area.
09:00 - 10:30	Pooh to inspection BHA tools for high pressure. Pull out without pump 5 stands, from 4006' to 3549'. Perform flow check, 10 min, ok.
10:30 - 16:00	Continue pooh dir. BHA with 12 1/4" PDC bit from 3549' to 60'.
16:00 - 16:30	Pepesa rig service and perform inspection to top drive clamp.
16:30 - 18:00	Continue Pooh 12 1/4" PDC bit. Phoenix Mud motor damage in bearing section GAP 6" open. L/D Phoenix mud motor. 12 1/4" PDC bit came out with 1 jet plug with rubber of mud motor.
18:00 - 18:30	Prepare drilling rig, to run dir. BHA.
18:30 - 20:30	M/U 12 1/4" PDC bit with new mud motor, monel 8", UBHO monel, 12 1/8" Stabilizer, UBHO, 8" MWD.
20:30 - 21:30	Install MWD tool, no set inside UBHO tool. Re position, tool set, ok.
21:30 - 00:00	Continue RIH dir. BHA w 12 1/4" PDC bit to 1200 ft.

April 04th, 2013

00:00 - 03:30	Continue TIH dir. BHA w/ 12 1/4" PDC bit from 1200' to 4006', last 3 stands with pump.
03:30 - 05:00	Circulate bottom up, pump dispersed pill and vis pill, circulate, shakers clean, ok.
05:00 - 08:30	Dir. drill rotating from 4006' to 4187'. WOB 15 klbs, 710 gpm, pres 2550 psi, 65 rpm, TQ 7.5 kft-lb. Geology sample @ 4060', 70% claystone, 30% siltstone.
08:30 - 11:00	Dir. drill sliding from 4187' to 4213'. WOB 25 klbs, pres 2950 psi, 740 gpm.
11:00 - 13:00	Dir. drill rotating from 4213' to 4376' WOB 15 klbs, pres 2984 psi, 750 gpm, 70 rpm, 7.7 kft-lb.
13:00 - 14:00	Accumulate ream, circulate, connections and surveys.
14:00 - 15:30	Dir. drill sliding from 4376' to 4409'. WOB 25 klbs, pres 2700 psi, 700 gpm.
15:30 - 18:30	Dir. drill rotating from 4409' to 4570'. WOB 20 klbs, pres 3100 psi, 733 gpm, 67 rpm, TQ 9 kft-lb.



18:30 - 23:00 Dir. drill sliding from 4570' to 4649'. WOB 11 klbs, pres 2800 psi, 710 gpm.
23:00 - 00:00 Accumulate ream, circulation, connection and survey. Survey at 4605', incl 59.3 deg, azm 212.60 deg. Geology sample at 4580', 70% claystone, 30% siltstone.

April 05th, 2013

00:00 - 03:00 Accumulate dir. sliding from 4649' to 4701' WOB 25 klbs, pres 2850 psi, 702 gpm.
03:00 - 05:00 Accumulate dir. drill rotating 4701' to 4818' WOB 14 klbs, pres 3000 psi, 720 gpm, 65 rpm, TQ 8 kft-lb.
05:00 - 06:00 Accumulate ream, circulate, connections and survey. Last survey @ 4700', incl 58.8 deg, azm 214.4 deg. Geology sample @ 4760', 50% claystone, 50% siltstone, tr sandstone.
06:00 - 11:30 Dir. drill rotating from 4818' to 5045'. WOB 14 klbs, pres 3187 psi, 753 gpm, 67 rpm, TQ 7.5 kft-lb.
11:30 - 12:00 Circulate bottom up, to obtain geology sample FM Chacra @ 5045' show 70% claystone, 30% siltstone.
12:00 - 12:30 Dir. drill rotating from 5045' to 5100'. WOB 14 klbs, pres 3296 psi, 752 gpm, 71 rpm, TQ 7.5 kft-lb. Show 16 gas units, increase ROP from 40 to 100 ft/hr.
12:30 - 13:30 Circulate bottom up to obtain geology sample @ 5100', 70% claystone, 30% siltstone, tr sandstone. While circulating gas increase to 25 units.
13:30 - 15:30 12 1/4" Section TD @ 5100 ft. Circulate and pump vis pill to condition hole, MW 10.3+ ppg.
15:30 - 00:00 Pooh directional BHA with 12 1/4" PDC bit. L/D Jar, Monels, MWD, Stabilizer, Mud Motor.

April 06th, 2013

00:00 - 05:30 M/U and RIH Slick BHA with 12 1/4" tricone bit from surface to 5100'. Last 2 stands TIH with pump.
05:30 - 08:00 Circulate and condition hole, MW: 10.3 ppg. Pump vis pill, shaker clean, ok.
08:00 - 12:00 Pooh Slick BHA with 12 1/4" tricone bit from 5100' to 3750'. reaming. Tight at 4825', 4734', 4459', 4395' 4216', 3900'. Work string up/down w/ pump and rotation.
12:00 - 14:30 TIH from 3750' to 5100'. Tight at 4100', 4643' and 4700'. work string up/ down.
14:30 - 15:00 Circulate, show gas 1388 units, drop to 135 units. Continue circulating bottom up.
15:00 - 16:30 Circulate and increase MW from 10.3 ppg to 10.5 ppg.
16:30 - 17:00 Pull out 3 stands, work up/down, tight at 4912', 4858'.
17:00 - 18:30 TIH back to bottom 5100'. Circulate and increase mud weight from 10.5 ppg to 10.6 ppg.
18:30 - 00:00 Pull out slick BHA w/ 12 1/4" tricone bit, from 5100' to 2400'. Tight point at 4618', work up/down with rotation and circulation. From 2400' to 1011' shoe 13 3/8" free with out rotation and circulation.

April 07th, 2013

00:00 - 08:30 Pepesa organize 2nd level and wait on 9 5/8" casing.
08:30 - 12:00 TIH slick BHA w/ 12 1/4" tricone bit from 1011' to 4560'. show gas units on surface to 1800 units.
12:00 - 13:00 Circulate, gas units drop to cero.
13:00 - 14:00 Continue TIH from 4560' to 5100'. Last 3 stands with pump.
14:00 - 16:30 Circulate, increase mud weight 10.8 ppg. pump vis pill, condition mud.



16:30 - 19:30 Pull out slick BHA w/ 12 1/4" tricone bit from 5100' to 3900' with pump and rotation.

19:30 - 22:00 Continue pull out from 3900' to 1011' shoe 13 3/8" free without pump. Mud weight 10.8 ppg.

22:00 - 00:00 Arrived to location vessel Confidence, bring 9 5/8" casing, Pepesa receive material.

April 08th, 2013

00:00 - 04:30 Wait on casing. TIH slick BHA w/ 12 1/4" tricone bit to calibrate hole from 1011' to 5100 ft. Last 3 stands with pump. Pepesa receiving 9 5/8" casing from Vessel to Perla Barge.

04:30 - 06:00 Circulate bottoms up, condition hole, shakers clean, ok. Prepare to Pooh to surface. Mud weight 10.8 ppg.
Pepesa continue receiving and measure 9 5/8" casing from Vessel to Perla barge.

06:00 - 10:00 Pull out slick BHA w/ 12 1/4" tricone bit from 5100' to 1011' shoe 13 3/8".

10:00 - 13:00 Continue Pooh from 1011' to surface. L/D jar, stabilizer, and bit. Rig up 5 joints casing 9 5/8", N-80, 43.5 lb/ft, install float shoe and float valve.

13:00 - 15:30 R/U and M/U Weatherford tools, install Over drive, spider, power units, control panel. Change links to Top Drive.

15:30 - 16:00 Perform safety meeting with Weatherford and Pepesa crew.

16:00 - 17:00 Run casing 9 5/8", N-80, 43.5 lb/ft, 9 5/8" shoe, 1 joint casing. to 76 ft.

17:00 - 17:30 WTF no possible to make casing connections with WTF Over drive, no possible to center csg joints.

17:30 - 19:30 Rig down WTF over drive and panel control. Rig up long links, and conventional elevator and hydraulic tongs.

19:30 - 22:30 Continue run casing 9 5/8", N-80, 43.5 lb/ft, from 76' to 1000'.

22:30 - 23:30 M/U and install WTF fill up tool.

23:30 - 00:00 Circulate bottom up at 1000 ft. 13 5/8" shoe, ok.

April 09th, 2013

00:00 - 07:30 Continue running casing 9 5/8", N-80, 43.5 lb/ft, from 1000' to 5095', (136 joints + 2 pup joints). Circulate at 2500', 4000' and 5095' with 337 gpm, 500 psi, ok.

07:30 - 09:00 Circulate bottoms up with 337 gpm, pres 452 psi. and reciprocate casing.

09:00 - 10:00 L/D WTF mechanical elevator, no possible to open, WTF tool tight to casing 9 5/8", no possible to run last 5 ft casing. Medomack cement vessel arrived at 9:00 am. rig up cement lines.

10:00 - 11:00 Halliburton personnel rig up cement lines. Circulate casing 9 5/8" with fill up tool, 330 gpm, 460 psi.

11:00 - 12:00 WTF perform maneuver to L/D fill up tool. Install conventional elevator and Halliburton cement head.

12:00 - 13:00 Circulate with 300 gpm, 500 psi. 9 5/8" Shoe depth 5095 ft, Float Valve 5017 ft.

13:00 - 13:30 Perform safety meeting with Halliburton, Savia and Pepesa crew.

13:30 - 16:30 Halliburton fill cmt lines with fresh water and test lines w/ 3000 psi. Drop bottom plug, pump 15 bbls mud flush 8.4 ppg, tuned spacer 30 bbls, 11.5 ppg.
Start mix lead slurry Econocem I 13.5 ppg (328sx), Pump lead slurry 223 bbls, 5bpm, 680 psi. Pump tail cement Halcem I :99 bbls, 15.2 ppg, 5 bpm, 640 psi, (445 sx).
Drop top plug, displacement with 374 bbls mud 10.8 ppg. 7/2 bpm 400/600 psi. Return to surface mud flush, tuned and contaminated 12.5 ppg.
Bump plug with 690 psi and overpressure to 1100 psi. Perform back flow test



2bbls, ok. used 1208 sk of cement Pacasmayo.
 16:30 - 17:30 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.
 17:30 - 18:30 Lift 13 5/8" BOP w/raiser, center 9 5/8" csg, set slips 110 klbs. Cut and L/D belt Nipple.
 18:30 - 20:00 L/D spider and elevators, Cut and retrieve 9 5/8" csg landing joint on first level.
 20:00 - 00:00 WOC. Cut and bevel 9 5/8" csg on first level. Install casing spool 13 5/8 x 3M - 11 x3M, tight bolts and perform test w/1500psi by 10 min, ok. Install double flange drill extension 13 5/8x3M ; 11x3M.

April 10th, 2013

00:00 - 08:00 Install 13 5/8" x 5M drilling spool, BOP stack and tighten bolts. Connect chockline and kill lines from drilling spool to manifold. Center 13 5/8" BOP and weld pads.
 08:00 - 09:00 Test BOP operativity, 8 sec pipe rams, 9 sec blind rams, 2 sec HCR, 25 sec annular, open/close, ok. Rig up 12 joints 5" DP from barge to platform.
 09:00 - 09:30 Install 9 5/8" plug tester. Move WTF material from platform to barge.
 09:30 - 10:00 Pepesa test pipe rams 300/3000 psi, annular 300/1500 psi. Test choke line, fail. Leak pressure from raiser flange and 13 5/8"x5M drilling spool.
 10:00 - 14:00 Pepesa retrieve plug tester, lift 13 5/8" BOP, change Ring BX160 between raiser flange and drilling spool. Tight bolts in drilling spool.
 14:00 - 15:00 Install 9 5/8" plug tester. Perform BOP test. 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.
 15:00 - 16:00 Test: internal of manifold w/ 300 & 3000 psi, by 10 min, ok.
 16:00 - 16:30 Test Blind rams, fail, leak in flange between raiser and drilling spool.
 16:30 - 21:00 Pepesa L/D 13 5/8" BOP, flange and 11" raiser. Wait on flange from Talara. (Flange 11x3M; 13 5/8"x5M).
 21:30 - 00:00 M/U 5" DP in stands.

April 11th, 2013

00:00 - 04:30 Continue M/U 5" DP in stands, total 24 stands.
 04:30 - 08:00 Pepesa receive flange 11x3M; 13 5/8"x5M. Install flange to 13 5/8" raiser.
 08:00 - 11:00 Install 13 5/8" x 5M drilling spool, BOP stack and tighten bolts. Connect chockline and kill lines from drilling spool to manifold.
 11:00 - 15:00 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.
 Confidence vessel arrived to location 12:30pm, unloading Weatherford directional tools material.
 Savia mechanical arrived at 10:30 a.m. repairing platform crane Linkbelt 043. Change cylinder heads.
 15:00 - 16:00 Continue testing BOP, annular w/ 300/1500 psi, ok. Retrieve plug tester, install wear bushing. At the same time, receive material from Confidence, and Savia mechanical repairing platform crane.
 16:00 - 19:00 Pepesa center 13 5/8" BOP and weld pads. Install bell nipple and flow line. At the same time, receive material from Confidence, and Savia mechanical repair



platform crane.

19:00 - 21:00 Confidence vessel receive material (WTF running tools, over drive, fill up tool, power units) Savia Mechanical continue repairing platform crane. Pepesa M/U 5" DP in stands.

21:00 - 22:00 Confidence vessel continue receiving WTF tools. Pepesa continue M/U 5" DP in stands. Savia Mechanical finish to repair crane at 21:00 hrs.

22:00 - 00:00 Organize material on 3rd level of platform. Rig up directional tool from barge to platform and HWDP. Measure and calibrate tools.

April 12th, 2013

00:00 - 01:30 Measure and calibrate tools. Continue R/U directional tools.

01:30 - 03:00 WTF test tools on surface, make inspection and programming LWD/MWD.

03:00 - 05:00 M/U and TIH dir. BHA w/ 8 1/2" PDC bit SKHE519M, 6 3/4" Motory Steerable, 6 3/4" DC, LWD.

05:00 - 06:00 WTF Programming LWD inside hole.

06:00 - 12:00 Continue TIH dir. BHA with 8 1/2" PDC bit from 77 ft. to 1500 ft. circulate, ok.

12:00 - 13:00 Pepesa cut 120 ft. off, and slip 100 ft. drilling line.

13:00 - 15:00 TIH dir. BHA from 1500', to 3500'. Fill string every 1000' ft. WTF test Motary tool w/ 400 gpm & 1400 psi, ok.

15:00 - 16:30 Continue TIH dir. BHA with 8 1/2" PDC bit from 3500' to 5013'. Last 3 stands with pump. Tag Top of Cement @ 5013'.

16:30 - 17:30 Drill out top and bottom plug, float valve and cement from 5013' to 5080'. WOB 5/8 klbs, pres 1400 psi, 412 gpm.

17:30 - 18:00 Perform casing test with 1000 psi, 10 min, ok.

18:00 - 18:30 Drill out cement from 5080' to 5100'. WOB 7 klbs, 400 gpm, 1400 psi.

18:30 - 19:00 Dir. drill rotating with 8 1/2" PDC bit from 5100' to 5115'.

19:00 - 19:30 Circulate, geology confirm 100% formation, ok. FM Chacra, claystone.

19:30 - 20:30 Displace contaminate mud with cement for new mud 10.3 ppg.

20:30 - 21:00 Clean shakers pit on second level. Perform FIT, mud weight 10.3 ppg, pres 450 psi, EMW: 13.0 ppg., ok.

21:00 - 21:30 WTF calibrate depth sensor and tools inside casing.

21:30 - 00:00 Dir. drill rotating w/ 8 1/2" PDC bit from 5115' to 5259'. WOB 16 klbs, 500 gpm, pres 2500 psi, 63 rpm, TQ 9.5 kft-lb.

April 13th, 2013

00:00 - 01:00 Accumulate dir. drill sliding from 5259' to 5299'. WOB 15/18 klbs, pres 2050 psi, 500 gpm.

01:00 - 05:00 Accumulate dir. drill rotating from 5299' to 5667', WOB 18 klbs, pres 2100 psi, 500 gpm, 10 kft-lb, 50 rpm.

05:00 - 06:00 Accumulate ream, circulate, connections and survey. Last Survey @ 5602', incl 61.37 deg, azm 214.41 deg. Geology sample FM. Rio Bravo @ 5590', 50% claystone, 20% sand, 20% sandstone, 10% siltstone.

06:00 - 10:00 Accumulate dir. drill rotating from 5667' to 5981'. WOB 17 klbs, pres 2600 psi, 530 gpm, 65 rpm, TQ 9.5 kft-lb.

10:00 - 10:30 Pepesa rig service. Pump #3 PZ8 broke damper.

10:30 - 14:30 Dir drill rotating w/ 8 1/2" PDC bit (work w/ white-star pump #1 & #2), from 5981' to 6411'. WOB 19klbs, pres 2900 psi, 530 gpm, 60 rpm, TQ 9.5 kft-lb, ROP 105 ft/hr.

14:30 - 15:00 Accumulate ream, circulate, connections and surveys. Survey @ 6359' incl 59.17 deg, azm 214.77 deg. Geology sample @ 6350', 40% sandstone, 20% sand, 40% claystone. 5% fluorescence.

15:00 - 15:30 Accumulate dir. drill sliding from 6411' to 6433'. WOB 20 klbs, pres 2900 psi, 530 gpm.

15:30 - 23:00 Accumulate dir. drill rotating from 6433' to 7000'. WOB 21 klbs, pres 2950 psi, 520 gpm, 60 rpm, TQ 10.5 kft-lb.

23:00 - 00:00 Accumulate ream, circulate, connections and surveys. Geology sample FM Rio Bravo @ 7000', 80% claystone, 20% sandstone.

April 14th, 2013

00:00 - 00:30 Dir. drill rotating from 7000' to 7074'. WOB 19 klbs, pres 2950 psi, 525 gpm, 62 rpm, TQ 10 kft-lb.

00:30 - 01:00 Circulate to obtain last geology sample FM Rio Bravo @ 7074', 90% claystone, 10% sandstone. Last survey @ 7022', incl 61.17 deg, azm 215.05 deg.

01:00 - 02:00 Pump vis pill, circulate, condition hole, shakers clean, ok.

02:00 - 06:00 Pull out from 7074' to 5100'. Free. Tight point at 6886', work string, ok.

06:00 - 08:30 TIH from 5100' to 7074', Last 3 stands with pump.

08:30 - 09:30 Circulate, bottom up, gas 6258 units, drop to cero. ok.

09:30 - 14:00 Dir. drill rotating from 7074' to 7548'. WOB 19 klbs, pres 3088 psi, 523 gpm, 70 rpm, TQ 11 kft-lb. Avg. ROP 105 ft/hr.

14:00 - 15:00 Accumulate ream, circulate, connections and surveys. Last survey @ 7402', incl 60.45 deg, azm 215.07 deg. Geology sample @ 7490', 40% claystone, 30% sandstone, 30% sand.

15:00 - 16:30 Circulate, ECD increase to 12.8 ppg. MW: 10.8 ppg. Pump vis pill. Circulate, ECD drop to 12.1 ppg.

16:30 - 17:30 Fail piston pump #2, work w/ pump #1 & #3. Dir. drill rotating from 7548' to 7600', WOB 18 klbs, pres 2900 psi, 520 gpm, 61 rpm, TQ 10.7 kft-lb.

17:30 - 20:00 Possible pump #3 fail motor crank, work w/pump #1 & #2. Dir. drill rotating from 7600' to 7737'. WOB 18 klbs, pres 3100 psi, 545 gpm, 59 rpm, TQ 12 kft-lb.

20:00 - 21:00 Circulation bottom up to clean annular. MW 10.8 ppg.

21:00 - 00:00 Dir. drill rotating w/ 8 1/2" PDC bit from 7737' to 7852'. WOB 19 klbs, pres 2900 psi, 520 gpm, 62 rpm, TQ 14 kft-lb. add ultra free.

April 15th, 2013

00:00 - 01:30 Accumulate dir. drill sliding from 7852' to 7877'. WOB 22 klbs, pres 2850 psi, 530 gpm.

01:30 - 04:00 Accumulate dir. drill rotating from 7877' to 8020'. WOB 18 klbs, pres 3000 psi, 520 gpm, 62 rpm, TQ 14.5 kft-lb.

04:00 - 05:00 Circulate bottom up.

05:00 - 05:30 Dir. drill rotating from 8020' to 8113'. WOB 19 klbs, pres 3050 psi, 520 gpm, 60 rpm, TQ 14.5 kft-lb.

05:30 - 06:00 Accumulate ream, circulate, connections and surveys. Last survey @ 7970', incl 59.12 deg, azm 213.41 deg. Geology Sample FM Rio Bravo @ 8110', 70% claystone, 20% siltstone, 10% sandstone.

06:00 - 08:00 Pressure increase from 2900 psi to 3200 psi. Weatherford HEL tool (LWD) no pulser. WTF perform tools surface inspection. Circulate and pump dispersed pill to clean tool.

08:00 - 08:30 Dir. drill rotating from 8113' to 8146', 33 ft to possible clean pulser tool. Negative, HEL tool (LWD), record information no valid.

08:30 - 10:30 Prepare and circulate vis pill, to clean annular, shakers clean, ok. Last geology sample FM Rio Bravo @ 8146', 70% sandstone, 20% claystone, 10% sand, 5% fluorescence.

10:30 - 11:00 Pull out 3 stands from 8146' to 7871', perform flow check, 10 min, ok.

11:00 - 12:00 POOH dir. BHA w/ 8 1/2" PDC bit to 7871' to 7150', with pump.



12:00 - 15:00 Continue Pooh, tight point at 7150 ft, 6927 ft, 6729 ft, 6480 ft. Work up/down with rotation and circulation.

15:00 - 00:00 Continue Pooh from to surface. L/D Jar, LWD, Short NMDC, Motary Steerable System, 8 1/2" PDC bit. (Test at 67 ft. LWD w/ 413 gpm, observe pressure 1143 psi.).

April 16th, 2013

00:00 - 02:00 M/U and RIH 8 1/2" PDC bit 519M, Motary steerable system, Short NMDC 6 3/4", Hel 6 3/4" LWD.

02:00 - 03:30 Weatherford programming HEL tool (LWD) at 67 ft.

03:30 - 06:00 Continue RIH dir. BHA with 8 1/2" PDC bit from 67 ft to 2000 ft.

06:00 - 06:30 Show gas to surface. circulate, gas 2800 units. drop to cero.

06:30 - 09:00 TIH dir. BHA w/ 8 1/2" PDC bit from 2000' to 5076'.

09:00 - 10:00 Circulate at 5076'. Gas 3293 units. drop to cero.

10:00 - 10:30 Pepesa Rig service. Change top drive saver sub.

10:30 - 12:30 Continue TIH from 5076' to 6442'.

12:30 - 13:00 Circulate gas 3222 unit. drop to cero.

13:00 - 14:00 TIH from 6442' to 6927' w/ pump.

14:00 - 14:30 Tight point at 6927'. Sit string, work string up/down. free, ok.

14:30 - 15:00 Pepesa pull out stand, disconnect and problems with Top drive saver sub. (saver sub untight). L/D 3 joints 5", ok. Change saver sub.

15:00 - 16:00 Pull out 2 stands from 6927' to 6750' work up/down with circulation and rotation. free.

16:00 - 17:30 Circulate, pump vis pill to clean annular. condition mud, increase MW from 11.0 ppg to 11.3 ppg. Increase lubricity from 1% to 2% with ultra free, reduce filtrate and add clays inhibitor.

17:30 - 19:30 TIH from 6750' to 7000'. Work string up/down with rotation and circulation, tight points and sit at 6980', 7000'. No possible to TIH.

19:30 - 20:00 Pull out 2 stands from 7000' to 6750'.

20:00 - 22:30 Circulate, condition hole and increase mud weight from 11.3 ppg to 11.5 ppg.

22:30 - 00:00 Halliburton continue increasing mud weight 11.3 ppg to 11.5 ppg.

April 17th, 2013

00:00 - 03:00 POOH dir. BHA w/ 8 1/2" PDC bit from 6750' to 5168'. w/ pump and rotation.

03:00 - 03:30 Pepesa rig service, change new top drive saver sub.

03:30 - 08:30 Continue POOH dir. BHA w/ 8 1/2" from 5168' to surface. L/D monels, LWD, Motary Steerable, bit.

08:30 - 17:00 M/U slick BHA, w/ 8 1/2" PDC bit, near bit, 4 DC 6 1/2", Jar, cross over, 1 DC 6 1/2", cross over, HWDP 5", and 5" DP, to 5100 ft.

17:00 - 17:30 Circulate bottom up and condition mud. MW 11.5 ppg.

17:30 - 18:30 Continue TIH slick BHA w/ 8 1/2" PDC from 5100' to 6500'.

18:30 - 19:00 Circulate bottom up, ok. MW 11.5 ppg.

19:00 - 19:30 TIH slick BHA w/ 8 1/2" PDC bit from 6500' to 6630'.

19:30 - 22:30 NPT Halliburton, circulation to condition mud system with 500/350 gpm, 1200/1700 psi. Add 180 bbls fresh mud 11.5 ppg.

22:30 - 23:00 TIH slick BHA w/ 8 1/2" PDC bit from 6630' to 7676' with 500 gpm & 1700 psi.

23:00 - 00:00 At 7967' observed symptom of pack off, work string up/down with rotation and circulation: 500 gpm, 1850 psi, 70 rpm, 15/20 tq. Condition wash down several times from 6976' to 6900'.

April 18th, 2013

00:00 - 04:00	Continue wash down from 6976' to 7005', work string several times with 500 gpm, 1900 psi, 70 rpm, 13/18 klb-ft tq.
04:00 - 04:30	At 7005' observed symptom of pack off, work string up/down with rotation and circulation: 300/500 gpm, 1150/1850 psi, 70 rpm, 15/23 tq. Condition wash down several times from 7005' to 6976'.
04:30 - 07:00	Continue wash down from 6976' to 7005' with 500 gpm, 1800 psi, 70 rpm, 13/18 klb-ft tq.
07:00 - 07:30	Reaming at 7005 ft observed symptom of pack off, work string up/down with rotation and circulation: 300/500 gpm, 1150/1850 psi, 70 rpm, 15/23 tq.
07:30 - 09:00	Circulate with 500 gpm and 1900 psi to increase mud weight from 11.5 ppg to 11.7 ppg.
09:00 - 12:00	Continue wash down from 7005 ft to 7015 ft with 450 gpm, 1750 psi, 70 rpm, 14 klb-ft.
12:00 - 12:30	At 7015 ft observed symptom of pack off, work string several times and continue circulate con rotation.
12:30 - 13:30	Pump & circulate with 500 gpm, 2000 psi, 25 bbls heavy and viscosity pill with bridging and seal materials.
13:30 - 23:30	Continue wash down from 7015 ft to 8146 ft, with 500 gpm, 1850 psi, 70 rpm, 15/20 klb-ft tq. MW 11.7 ppg, Vis 58 seg/qt.
23:30 - 00:00	Pump & circulate with 500 gpm, 2000 psi, 20 bbls viscosity pill with bridging and seal materials.

April 19th, 2013

00:00 - 01:00	Continue circulate with 520 gpm, 2250 psi and displace 20 bbl viscosity pill with bridging and seal materials.
01:00 - 14:00	Drill rotating from 8146 ft to 8600 ft (TD), 520 gpm, 2300 psi, wob 15/20 klb, 70 rpm, 15/17 kft-lb. ROP avg 44 ft/hr, MW 11.7 ppg.
14:00 - 17:30	Circulating and reciprocate drill string a bottom up, 520 gpm, 2300 psi. Geologys recover a bottom sample at 8600 ft, 100% clyst. Pump 25 bbl disperse and 20 viscosity sweep pill in tandem. Continue circulate with 520 gpm, 2300 psi to displace pills up to clean shakers.
17:30 - 22:00	POOH 8 1/2" slick BHA from 8600 ft to 5065 ft (9 5/8" csg shoe), with circulation and rotation as a caution to remove the cutting beds, with 450 gpm, 1700 psi, 70 rpm, 15/17 klb-ft tq.
22:00 - 23:30	At 5065 ft circulate and pump 20 bbl HVP and displace with 570 gpm, 2100 psi, observed by shakers cuttings, circulate up to clean shakers.
23:30 - 00:00	RIH 8 1/2" slick BHA from 5065 ft to 6000 ft.

April 20th, 2013

00:00 - 01:00	Continue RIH 8 1/2" slick BHA from 6000 ft to 6945 ft, when tag BHA with 30 klbs.
01:00 - 06:00	Continue wash down 8 1/2" slick BHA from 6945 ft to 8600 ft (TD) with circulation and rotation with 450 gpm, 1950 psi, 70 rpm, 15/17 klb-ft tq.
06:00 - 09:00	Circulating a bottom up to displace trip gas with 530 gpm, 2400 psi. Pump 20 bbl sweep pill and continue circulate 570 gpm, 2750 psi to displace pill up to clean shakers.
09:00 - 13:30	POOH 8 1/2" slick BHA from 8600 ft to 5065 ft (9 5/8" csg shoe) with circulation and rotation with 450 gpm, 1700 psi, 70 rpm, 15/17 klb-ft tq.
13:30 - 14:00	Pump and displace 15 bbl sluge pipe to continue POOH.



14:00 - 18:30 Continue POOH from 5065 ft to surface, L/D 8 1/2" slick BHA: 8" Near Bit and 8 1/2" PDC bit.

18:30 - 19:30 Prepare and perform 150 ft drilling line cut off and 120 ft slip drilling line.

19:30 - 20:00 Rig Services: Change TD saver sub, TD technician perform TD lubricity.

20:00 - 21:00 Cia. SLB install pressure, torque and weight sensors. Calibrate depth with traveling block height and drilling line beds on drawwork.

21:00 - 21:30 Perform safety and operative meeting with SLB, Pepesa and Savia personal to M/U and RIH LWD BHA.

21:30 - 00:00 M/U & RIH LWD 8 1/2" BHA: 8 1/2" rr-tricone bit, 6 1/2" Bit Sub w/FV, 6 7/8" Ecoscope (Density, Porosity, Resistivity, Caliper & GR) with 8 1/4" STB, 6 3/4" Telescope, 6 3/4" NMDC, 6 1/2" DC to 120 ft.

April 21st, 2013

00:00 - 00:30 Continue M/U & RIH 3 jt 5" HWDP from 120 ft to 210 ft.

00:30 - 01:00 Pepesa perform TD rig services.

01:00 - 05:00 Continue M/U & RIH 16 jt 5" HWDP, 6 3/4" Hyd Jar, 8 jt 5" HWDP. BHA = 960.42.
At 450 ft SLB LWD eng perform shallow test with 350 gpm & 550 psi. 400 gpm & 680 psi, ok. Continue RIH with 5" DP to 5020 ft.

05:00 - 06:00 Circulate at 5020 ft to calibrate LWD tools with 350 gpm, 1080 psi, 40 rpm, positive test to continue logging.

06:00 - 00:00 Perform LWD (Density, Porosity, Resistivity, Caliper & GR) reaming from 5020 ft to 6920 ft with 450/350 gpm, 1700/1200 psi, 70 rpm, 13/19 lb-ft tq. Observed difficult to log in sand formations, due in gauge hole interval, work string with reaming and back reaming to pass this points, Also in gauge points, SPP increase suddenly due slight annular space between 8 1/4" Stabilizer EcoScope and in gauge hole. Logging speed average 120 ft/hr. Mud Engineer condition mud system with bridge materials and filtrate reducer.

April 22nd, 2013

00:00 - 12:30 Continue LWD (Density, Porosity, Resistivity, Caliper & GR) reaming from 6920 ft to 8600 ft w/ 350 gpm, 1200 psi, 70 rpm, 13/16 lb-ft tq. Logging speed average 180 ft/hr. SLB eng take survey each stand.

12:30 - 15:00 Circulate with 500 gpm, 2500 psi and pump 20 bbl viscosity pill, circulate a bottom up. Pump 25 bbl viscosity pill and circulate with 530 gpm, 2700 psi, 70 rpm, 16/19 klb-ft until clean shale shaker.

15:00 - 20:00 Take parameters with circulating: D/U 170 klb, S/O 100 klb, HL 130 klb. POOH 8 1/2" LWD BHA (Density, Porosity, Resistivity, Caliper & GR) with rotation and circulation 350 gpm, 1200 psi, 70 rpm, 16/18 klb tq, from 8600 ft to 5060 ft.

20:00 - 20:30 SLB take measure and correlations depth with log on 9 5/8" csg shoe.

20:30 - 21:00 BOP drill and emergency drill alert with all crew.

21:00 - 00:00 Pump 10 bbl sluge pill 13.3 ppg and displace to continue POOH from 5060 ft to 530 ft. L/D 8 1/2" LWD BHA: 8 joint 5" HWDP, 6 3/4" Hyd Jar, 16 joint 5" HWDP.

April 23rd, 2013

00:00 - 02:00 Continue POOH & L/D LWD BHA: 3 joint 5" HWDP, 6 1/2" DC, 6 3/4" NMDC, 6 3/4" Telescope, EcoScope w/ 8 1/4" STB, 6 1/2" Bit Sub w/FV, 8 1/2" rr-Tricone bit.

02:00 - 06:30 Wait 5 1/2" csg running tools due to bad weather in the area: M/U & RIH 8 1/2"

	slick BHA: 8 1/2" rr-tricone bit, 8" near bit, x/o, 4 DC 6 1/2", x/o, 18 joint 5" HWDP, 6 3/4" Hyd Jar, 6 joint HWDP 5". BHA = 881.47 ft. Continue RIH to 4600 ft.
06:30 - 07:00	Brake gels and circulate a bottom up with 500 gpm, 1600 psi.
07:00 - 08:00	Continue RIH 8 1/2" slick BHA from 5047 ft to 6270 ft. Talara Drilling Office order wait at csg shoes, while wait arrive M/R Sophia Christine with 5 1/2" Csg and csg running tools.
08:00 - 10:30	POOH from 6270 ft to 5035 ft with circulation and rotation.
10:30 - 13:00	Wait 5 1/2" csg & csg running tools. Pepesa inspection drawwork and ingines.
13:00 - 17:30	Continue RIH 8 1/2" slick BHA from 5035 ft to 6950 ft and wash down from 6950 ft to 8600 ft with 350 gpm, 1200 psi. M/R Sophia arrive to location at 16:00 hrs.
17:30 - 20:30	Circulate with 550 gpm & 2500 psi a bottom up and pump 20 bbl viscosity pill and continue circulate until clean shale shakers.
20:30 - 21:00	POOH from 8600 ft to 8350 ft with circulation and rotation. Driller observed increase suddenly TD speed and crow-matic brake TD. Check drawwork and observed broken drawwork brake band.
21:00 - 00:00	Rig Repair: Wait brake band and Pepesa technicians, while circulation with 410 gpm, 1470 psi. Pepesa personal put the slip on Kelly bushing with 5" DP. and then hang on derrick the traveling block and TD.

April 24th, 2013

00:00 - 04:00	Rig Repair: At 01:10 hrs Sheyla boat arrive with brake bands and Pepesa technician on location and perform change the brake bands. Perform drawwork brake test, ok.
04:00 - 12:30	Continue POOH from 8350 ft to 5035 ft (9 5/8" Csg shoe) with rotation and circulation. Pump & displace 10 bbl sluge pipe to continue POOH to surface. L/D 8 1/2" slick BHA: 6 jt 5" HWDP, 6 3/4" Hyd Jar, 18 jt 5" HWDP, x/o 4jt 6 1/2" DC, x/o, 8" Near Bit and 8 1/2" tricone bit.
12:30 - 13:00	M/U running tool with a DP stand and retrieve wear bushing. ITS crew install float equipment on the first three 5 1/2" csg on platform.
13:00 - 15:00	Pepesa L/D hawk jaw and condition rig floor and Co. ITS perform rig up power unit and hydraulics hoses, hydraulic power tong, L/D 5" hydraulic elevator by 12 ft links and Csg spider, 5 1/2" sigle joint.
15:00 - 15:30	Perform safety and operative meeting with Pepesa, Halliburton, ITS, Tramarsa, TGT Lab and Savia crew.
15:30 - 17:00	P/U & M/U 5.5" drillable float shoe, 2 jt 5 1/2" Csg 17 ppf, N-80, BTC. Install 1jt SR & 1jt BS centralizer, install 5 1/2" drillable float collar 17 ppf, N-80, BTC (Aumatic fill).
17:00 - 00:00	Continue run 102 jts 5 1/2" csg, 17 ppf, N-80, BTC to 4021 ft. Install 19 BS & 19 SR centralizers.

April 25th, 2013

00:00 - 02:00	Continue run 27 jts 5 1/2" csg, 17 ppf, N-80, BTC from 4021 ft to 5030 ft.
02:00 - 02:30	ITS install Fill Up Tool and 15" links.
02:30 - 04:00	Brake gels and circulate with 350 gpm, 800 psi. Disabled Automatic fill of Float Valve.
04:00 - 13:00	Run 226 jts 5.5" csg (total) plus 3 jts csg PJ, 17 ppf, N-80, BTC to bottom. Install 20 BS & 20 SR centralizers. From 6650 ft to 8588 ft some 5 1/2" csg run wash down and work string with 80/100 gpm.
13:00 - 15:00	Circulate with 340 gpm and 630 psi. Reciprocate 5.5" csg string up to 5 ft on rig floor, parameters D/U 175 lkb, D/D 100 klb, HL 130 klb. Medomack cement

	barge arrive to location at 10:40 hrs. Halliburton crew M/U cement lines from Medomack to rig floor, P/U cement lines, valves and quick latch cement head.
15:00- 16:00	Stop circulation to L/D ITS csg spider, fill up tool and spider elevator. M/U 5 1/2" Side door elevator, install Hall quick latch cement head, cement lines and valves.
16:00 - 16:30	Continue circulate & reciprocate on bottom with 330 gpm, 660 psi, w/ full return by shakers. While perform safety and operation meeting with Pepesa, Halliburton, TGT Lab, Tramarsa and Savia crew.
16:30 - 17:00	Halliburton perform cement lines test w/ 2200 psi by 10 min, ok.
17:00 - 17:30	Begin cement job: Pump 50 bbl, 11.7 ppg of low reology mud, pump 20 bbl Mud Flush 8.4 ppg w/5 bpm, 450 psi, 30 bbl Turned Spacer 12.5 ppg w/5bpm, 550/700 psi.
17:30 - 18:30	Drop bottom plug. Halliburton technician begin mixs cement and pump 242 bbl Halcem V, 15.2 ppg w/5 bpm, press 400 - 760 psi. Pepesa & Hall personnel observed by shakers full return.
18:30 - 20:30	Drop top plug and displace w/138 bbl of mud 11.7 ppg w/7 - 6 bpm 400 - 850 psi, observed problems with the mud transfer from mud tanks to Hall tank. Decide re-start displace w/ mud pumps and pump 7 bbl with 280 psi, observed problems with releave valves of mud pump. Decide continue displace with water and pump 57 bbl, 7 -2 bpm, 850 - 600 psi, Perform back flow 1.5 bbl, float collar valve, ok. leave closed cement head to ensure back flow. Csg shoe: 8585 ft, Float Collar: 8509 ft. Total cement used 1065 sxs (Pacasmayo V).
20:30 - 21:30	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.
21:30 - 23:00	Perform maneuver to lift 13 5/8" BOP stack, set casing hanger (slips) with 150 klb. Ok.
23:00 - 00:00	L/D Halliburton quick latch cement head, ok. 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.

CONCLUSIONS AND RECOMMENDATIONS

- The **LO6-28D**, is an Development well, and was drilled in four phases for 5.5" Casing from 411 feet to 8585 feet.
- During 8.5" phase, it was used mud BARADRIL-N type with mud weight between 10.3 ppg and 11.7 ppg.
- The last survey took was at 8553.13 feet MD, 4917.29 feet TVD with 65.72° of inclination and 215.85 degrees azimuth.
- The reservoir Rio Bravo top structurally was found at 5040.00 ft MD (RT), 3203.30 ft. TVD (RT), at 76.70 ft. more upper 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.