CORRECTION #1

Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1183319

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34242
Name: Oolite Energy Corp
Address 1: PO BOX 9398
Address 2:
City: AMARILLO State: TX Zip: 79105 + __ __ __ __
Contact Person: David E. Rice
Phone: (806) 376-4279
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: Edwin H. Grieves
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

4/12/2013	5/8/2013	7/23/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-119-21338-00-00
Spot Description:
NW SE SE NW Sec. 19 Twp. 33 S. R. 29 ☐ East ☑ West
2055 Feet from ☑ North / ☐ South Line of Section
2300 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*

Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84

County: Meade
Lease Name: Fox Well #: 2-19
Field Name:
Producing Formation: Chester
Elevation: Ground: 2686 Kelly Bushing: 2698
Total Vertical Depth: 6600 Plug Back Total Depth: 6504
Amount of Surface Pipe Set and Cemented at: 1590 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 3800 ppm Fluid volume: 5565 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 08/06/2013
☑ **Confidential Release Date:** 08/06/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 01/21/2014

CORRECTION #1

Page Two

1183319

Operator Name: Oolite Energy Corp Lease Name: Fox Well #: 2-19

Sec. 19 Twp. 33 S. R. 29 ☐ East ☑ West County: Meade

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1590	A-Con, Prem Plus	550	3%CC,1/4poly,2%WLA
Production	7.875	4.5	10.5	6557	AA-2 Scavenger	335	5%W60,10%Salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
3	5955-5958 & 5962-5964	567 gals 15% acid	5955-5958 & 5962-5964
	CIBP @ 5945		
3	5868-5881	4165 gals 15% NE FE	5868-5881

TUBING RECORD: Size: 2.375 Set At: 5909 Packer At: Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.: 7/23/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	7	8	0		

DISPOSITION OF GAS: ☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1183319

All Electric Logs Run

Array Compensated True Resistivity Log
Bore Hole Compensated Sonic Array Log
Dual Spaced Neutron Spectral Density Log
Microlog
Radial Cement Bond Log

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1183319

Tops

Name	Top	Datum
Herrington	2728	
Base Heebner	4484	
Toronto	4500	
Lansing	4624	
Marmaton	5273	
Cherokee	5450	
Morrow	5770	
Chester	5840	
St. Genevieve	6127	
St. Louis	6220	

Summary of Changes

Lease Name and Number: Fox 2-19

API/Permit #: 15-119-21338-00-00

Doc ID: 1183319

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	08/07/2013	01/21/2014
Completion Or Recompletion Date	8/1/2013	7/23/2013
Date of First or Resumed Production or SWD or Enhr		7/23/2013
Disposition Of Gas - Sold	No	Yes
Fracturing Question 1		No
Method Of Completion - Perf	No	Yes
Producing Method Pumping	No	Yes
Production - Barrels Oil		7
Production - Barrels of Water		0
Production - MCF Gas		8

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1154311	../../kcc/detail/operatorEditDetail.cfm?docID=1183319
Tubing Record - Set At		5909
Tubing Size		2.375

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1154311

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 34242
Name: Oolite Energy Corp
Address 1: PO BOX 9398
Address 2:
City: AMARILLO State: TX Zip: 79105 + ____
Contact Person: David E. Rice
Phone: (806) 376-4279
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: Edwin H. Grieves
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:

Original Comp. Date: _____ Original Total Depth: _____

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: _____ Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

4/12/2013	5/8/2013	8/1/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-119-21338-00-00
Spot Description:
NW - SE - SE - NW Sec. 19 Twp. 33 S. R. 29 [ ] East [x] West
2055 Feet from [x] North / [ ] South Line of Section
2300 Feet from [ ] East / [x] West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- [ ] NE
- [x] NW
- [ ] SE
- [ ] SW

County: Meade
Lease Name: Fox Well #: 2-19
Field Name:
Producing Formation: Chester
Elevation: Ground: 2686 Kelly Bushing: 2698
Total Depth: 6600 Plug Back Total Depth: 6504
Amount of Surface Pipe Set and Cemented at: 1590 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from:
feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 3800 ppm Fluid volume: 5565 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: _____ License #:
Quarter ____ Sec. ____ Twp. ____ S. R. ____ [ ] East [ ] West
County: _____ Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] **Letter of Confidentiality Received**
  Date: 08/06/2013
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] I [ ] II [ ] III **Approved by:** NAOMI JAMES **Date:** 08/07/2013

Operator Name: Oolite Energy Corp Lease Name: Fox Well #: 2-19

Sec. 19 Twp. 33 S. R. 29 ☐ East ☑ West County: Meade

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken *(Attach Additional Sheets)*	☐ Yes	☑ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☐ Yes	☐ No

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1590	A-Con, Prem Plus	550	3%CC,1/4poly,2%WLA
Production	7.875	4.5	10.5	6557	AA-2 Scavenger	335	5%W60,10%Salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection:	Producing Method:
7/23/2013	☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	7	8	0		

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top / Bottom
☐ Vented ☑ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
3					567 gals 15% acid
3					4165 gals 15% NE FE

TUBING RECORD: Size: 2.375 Set At: 5909 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1154311

All Electric Logs Run

Array Compensated True Resistivity Log
Bore Hole Compensated Sonic Array Log
Dual Spaced Neutron Spectral Density Log
Microlog
Radial Cement Bond Log

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1154311

Tops

Name	Top	Datum
Herrington	2728	
Base Heebner	4484	
Toronto	4500	
Lansing	4624	
Marmaton	5273	
Cherokee	5450	
Morrow	5770	
Chester	5840	
St. Genevieve	6127	
St. Louis	6220	

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1154311

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
3	5955-5958 & 5962-5964	567 gals 15% acid	5955-5958 & 5962-5964
	CIBP @ 5945		
3	5868-5881	4165 gals 15% NE FE	5868-5881

Form	ACO1 - Well Completion
Operator	Oolite Energy Corp
Well Name	Fox 2-19
Doc ID	1154311

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1590	A-Con, Prem Plus	550	3%CC,1/4 poly,2%WLA
Production	7.875	4.5	10.5	6557	AA-2 Scavenger	335	5%W60,10%Salt

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Colile Energy		Lease No.	Date 5-10-13
Lease Fox		Well # 2-19	Service Receipt
Casing 4 1/2 10.6#	Depth 6559	County Meade	State KS
Job Type Production	Formation	Legal Description 19-33-29	

Pipe Data		Perforating Data		Cement Data
Casing size 4 1/2 10.6#	Tubing Size	Shots/Ft		Lead 385 SKS @ 14.8 PPG AA2 Cement 5% W-60, 10% Salt, 6% C-15, 1/4# Defoamer, 5# Gilsonite
Depth 6559	Depth 5546	From	To	
Volume 104 bls	Volume	From	To	
Max Press 2000	Max Press	From	To	Tail in
Well Connection 4 1/2	Annulus Vol.	From	To	
Plug Depth 6519	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
1100					On Loc - Rigup
1400					Safety Meeting
1600			1.5	1.5	Pressure Test
1605	330		5	4	Pump 5 bbls of Water Ahead
1620	325		12	4	12 bbL of Super Flush
1625	300		5	4	5 bbL of water behind
1630	250		90	5	Pump 335 SKS of Cement @ 14.7
1655					Wash up Drop Plug
1700	250		94	6.5	Pump Displacement with 2% KCL
1725	800		10	2.0	Slow down
1730	1400		.1	.1	Land Plug Float Held
					Plug Rat & Mouse Hole
					Job Complete
					Thanks For Using Basic Energy Services

Service Units	7-110	39750 19812	30463 37547			
Driver Names	Ruben	Smallwood	Victor			

Clint Andrews
Customer Representative

Jerry Bennett
Station Manager

Ruben Martinez
Cementer

Taylor Printing, Inc.

BASIC
ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer		Lease No.		Date
Lease		Well #		Service Receipt
Casing	Depth	County		State
Job Type	Formation		Legal Description	

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size	Shots/Ft		Lead
Depth	Depth	From	To	
Volume	Volume	From	To	3% calciumchloride 1/4#/sk 2% gel A-con
Max Press	Max Press	From	To	Tail in
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	2% of calciumchloride 1/4# poly pre cementplug

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
			9		

Service Units						
Driver Names						

Customer Representative

Station Manager

Cementer

Taylor Printing, Inc.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

August 06, 2013

David E. Rice
Oolite Energy Corp
PO BOX 9398
AMARILLO, TX 79105

Re: ACO1
API 15-119-21338-00-00
Fox 2-19
NW/4 Sec.19-33S-29W
Meade County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
David E. Rice

dul. yel, to yel. fluor; No Cut
scattered trs. poor
micro-pinpoint porosity

5100

Lms. lt. to med gry w/abn. tan; crypto. xln.; trs. sub-chlk, packstn. to sub-lithographic tan w/v. dul. yel. fluor.; No Cut; No Vis Por

Lms. med. to drk. gry; v. to extrly Shly. grdng. to highly calc. Shs.; crypto. xln.; sub-Ch lt to or Shly. + packstn.; Dot fluor; No Cut; No Vis Por

Sh. v. drk. gry to black-carb.

Lms. lt. to med. gry, tan ish lt; crypto. to v.v. fn. xln.; packstn. to sub-lithographic; trs/ft dul. yel. fluor.; No Cut; No Vis. Por

Lms. abn. wht. to crm. chlk + tan; crypto. to v.v. fn. xln.; v. to extrly oolicastic + /or Sh: to v. opl. tic; matrix sub-sucro of packstn.; dul. lt. to lt. yel. fluor.; No Cut; abn. pr. to fr. + trsgd. to Sl. trs excel. oolicastic por; V. Quest Perm. 5174-5209 Lms sts w/ interbeds Shs

① Lms. lt. gry, grysh. tan to tan; crypto to v.v. fn. xln.; trs sub-chlk, sub-sucro packstn. + trs sub-lithographic; dul. yel. fluor.; No Cut; No Vis Por

② Widely Scattered Shs med. to v. drk. gry - calc to v. brk. gry to black-carb.

5200

Lms. buy. trs. to abn. wht. to crm. chlk + tan; crypto. to v.v. fn. xln; very to extrly. oolicastic + /or fely to v. oolitic matrix trs. sub-chlk, sub-sucro to sucro. + packstn; dul. yel. to yel. fluor.; No Cut; abn. pr, fr to gd + trs excl. oolicastic por; V. Quest. Perm w/ trs Chert gry., opaque

Lms. lt. to med. gry. - sl. to fely Shly.; crypto. xln.; packstn. to sub-lithographic; No fluor No Cut; No Vis Porosity

Sh med. to drk. gry; very to extrly calc

5300

Lms, gryish. tan to tan; crypto. to v.v. fn. xln.; trs sub-chlk, sub-sucro + packstn; phantom oolitic to trs oolitic; dul. yel. fluor.; No Cut No Vis. Por

WOB 35000
RPM 75-80
SPM 100
PP 1200

Marmaton
5304-2606

210 U

Kansas City "A"
4146-2243

BLK. SH. 240 U

210 U

240 U BG

Interbedded Lmsts + Shales similar 5492-5528

w/a few interbeds Shs v. drk. gray to black carb.

180 U BG

C

170 U BG

C

5600

Interbedded Lmsts and Shales
① Lms. lt. gry. to tan; crypto. to vfn xln.; trs. sub-ch/h; sub-sucro.; packstn & trs. sub-lithogr.; dul. yel. fluor. lPs; No Cut; No Vis Por.
② hvy. trs. Lms. med. to drk gry. sli to extrly. Shly.; crypto xln packstn.; No fluor; No Cut; No Vis Por
③ Sh med. to v. drk gry. - sli. to extrly. calc. grdng. to shly Lmsts
④ Widely Scattered Shs v. drk. gray to black - carb.

150 U BG

C

Interbedded Lmsts + Shs similar 5605-5666 w/abn. Lms. drk. tan to lt. brown; crypto xln.; sub-lithogr.; No fluor; No Cut No Vis. Por

120 U BG

C

5700

5721-5802
Interbedded Lmsts and Shales similar 5605-5666 w/very abn. Shs. v. drk. gray to black - carb.

5802-5805 Sh. v. drk gry to black - carb

C

5805-5822 Lm. Sdst tan to lt. gry.; v. fn. to med gr.; composed Lm. grns, foss. frags. (grs crypto to v. v. fn. xln.) in matrix sub-ch/h sub-sucro & packstn; sli to v. silty & sdy. vv fn gr. ang.; sli trs. to abn. glauc &/or chlorite lPs; w/dul lt. yel. fluor. lPs; No Cut No Vis Por w/ultrathin Interbeds to laminations

100U BG
BLK. SH.
115 U

C

C

MORROW Fm

100U BG

CFS

5800

5803-3105'

BLK. SH.
127 U

siltstn. gry to tan; clay for calc; filled; No fluor; No Cut No Vis Por

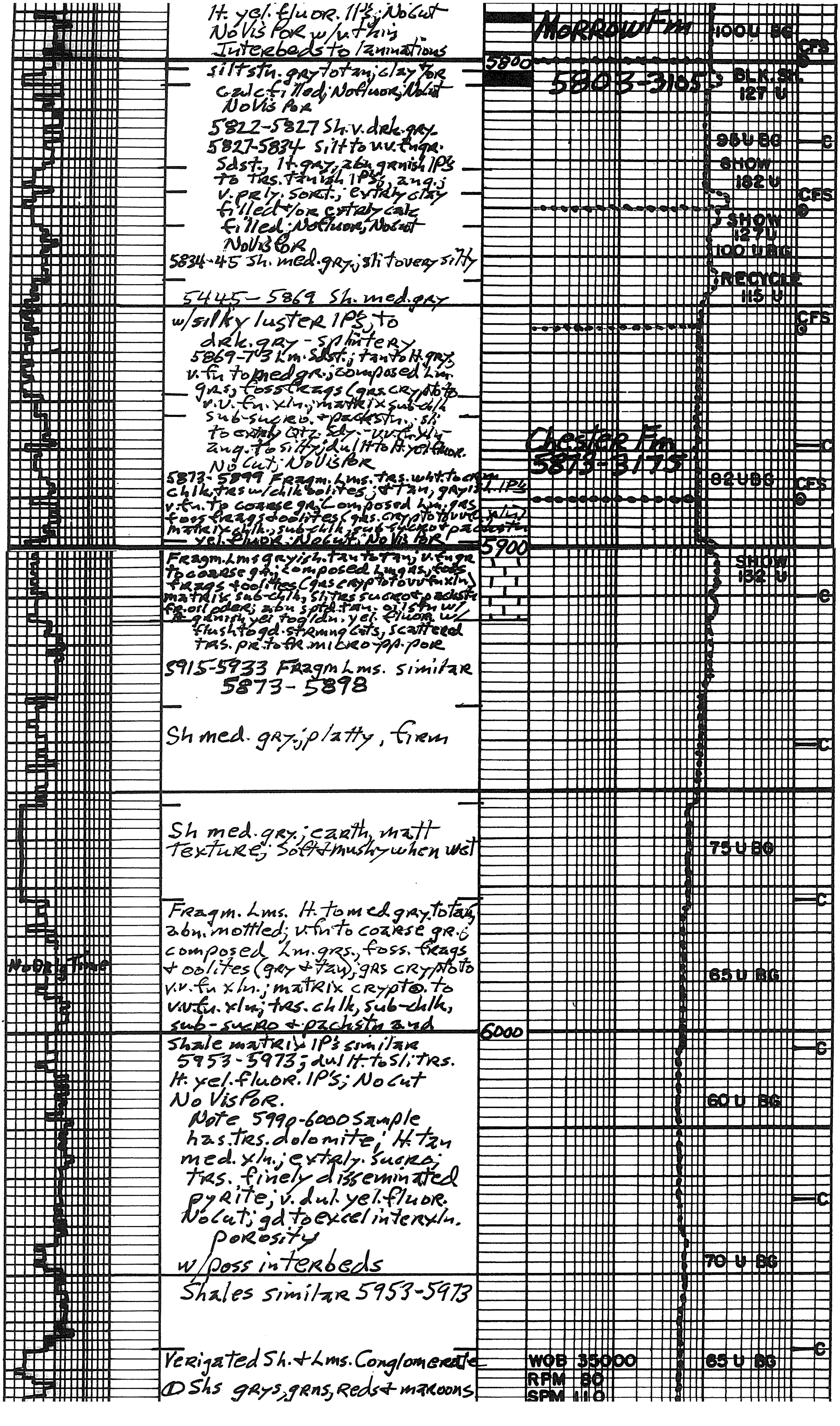
5822-5827 Sh. v. drk. gry.
5827-5834 silt to vv fngr. Sdst., lt. gray, abn grnish lPs to trs. tan ish lPs, ang.; v. prly sort.; extrly clay

98U BG

C

SHOW
162 U

CFS


lt. yel. fluor. 1P's; No Cut
No Vis Por w/ v. thin
Interbeds to laminations
siltstn. gray to tan; clay &/or
calc filled; No fluor; No cut
No Vis Por
5822-5827 Sh. v. drk. gray.
5827-5834 Silt to v.v. f.n.gr.
Sdst., lt. gray, abn. grnish 1P's
to trs. tanish 1P's, ang.;
v. prly. sort.; extrly clay
filled &/or extrly calc
filled; No fluor; No cut
No Vis Por
5834-45 Sh. med. gray; slt to very silty
5445-5869 Sh. med. gray
w/ silky luster 1P's, to
drk. gray - splintery
5869-73 Lm. Sdst.; tan to lt. gray
v. f.n. to med. gr.; composed Lm.
grs., foss frags (grs. crypto to
v.v. f.n. xln; matrix sub-chlk
sub-sucro. & packstn.; sl.
to extrly qtz. sdy. - v.v. f.n.
ang. to silty; dull lt to lt. yel fluor.
No Cut; No Vis Por
5873-5899 Fragm. Lms. trs. wht. to cream
chlk, trs w/ chlk oolites; & tan, grayish 1P's
v. f.n. to coarse gr. Composed Lm. grs.
foss frags & oolites (grs. crypto to v.v. f.n. xln)
matrix chlk., sub-chlk, sub sucro & packstn
yel. fluor. No Cut; No Vis Por
Fragm. Lms grayish tan to tan; v. f.n. gr.
to coarse gr.; composed Lm. grs., foss
frags & oolites (grs crypto to v.v. f.n. xln)
matrix sub-chlk, sl. trs sucro & packstn
fr. oil odor; abn. sptd. tan. oil stn w/
grnish yel. to gld. yel. fluor. w/
flush to gd. strmng cuts, scattered
trs. pr. to fr. microxp. por
5915-5933 Fragm Lms. similar
5873-5898
Sh med. gray; platty, firm
Sh med. gray; earth, matt
texture; soft & mushy when wet
Fragm. Lms. lt. to med. gray to tan
abn. mottled; v. f.n. to coarse gr.;
composed Lm. grs., foss. frags
& oolites (gray & tan); grs crypto to
v.v. f.n. xln; matrix crypto. to
v.v. f.n. xln; trs. chlk, sub-chlk,
sub-sucro & packstn and
Shale matrix 1P's similar
5953-5973; dull lt. to sl. trs.
lt. yel. fluor. 1P's; No Cut
No Vis Por.
Note 5990-6000 sample
has trs. dolomite; lt. tan
med. xln; extrly. sucro;
trs. finely disseminated
pyrite; v. dul. yel. fluor.
No Cut; gd to excel interxln.
porosity
w/ poss interbeds
Shales similar 5953-5973
Verigated Sh. & Lms. Conglomerate
① Shs grays, grns, reds & maroons
No Drlg Time
5800
5900
6000
Morrow Fm
5803-3105
Chester Fm
5873-3175
100 U BG
CFS
BLK. SH.
127 U
95 U BG
C
SHOW
182 U
CFS
SHOW
127 U
100 U BG
RECYCLE
115 U
CFS
C
82 U BG
CFS
SHOW
132 U
C
C
75 U BG
C
65 U BG
C
60 U BG
C
70 U BG
C
65 U BG
WOB 35000
RPM 80
SPM 110

No Cut; gd to excel interxln. porosity w/poss interbeds

Shales similar 5953-5973

Verigated Sh. & Lms. Conglomeratic

① Shs grys, grns, Reds & maroons

② Lms. H.gry. to tan, grnish. IPs to frs H. grn; crypto. to v.v.fn.xln; frs. sub-chlk, sub-sucrot packstn, frs. sli. to fraly foss. grdng to Fragm. Lms. similar 5953-6006; trs v.dul. H. yel. fluor; No Cut; No Vis Por

WOB 35000
RPM 80
SPM 110
PP 1250

70 U BG

65 U BG

6100

Lms. trs. wht. to crm-chlk & crm to lt. tan crypto. to v.v.fn.xln; sli. to very oolitic (sm, med & lg); matrix chlk, sub-chlk, sub-sucro & packstn; dul. H. to H. yel. fluor; No Cut; No Vis Por

55 U BG

Verigated Shs & Lms. Conglomeratic similar 6016-6107 w/ frs Lms, lt. gry., pinkish IPs to trs pink & H. green; crypto. to v.v.fn.xln v. to extrly micro-oolitic; matrix sub-chlk to sub sucro & packstn.; trs, dul. yel. fluor; No Cut; No Vis Por

60 U BG

Reworked St. Genevieve

6163 - 6345

Reworked St. Genevieve Lms. H. gry to tan, greenish IPs to trs pinkish IP's; crypto. to v.v.fn.xln; v. to extrly micro-oolitic & /or sli to fraly Qtz. Sdy - v.v.fn. gr ang.; matrix chlk, sub-chlk, sub-sucro.; v.dul. yel. fluor.; No Cut; No Vis Por w/ trs Chert lt. gry trans. w/ poss interbeds verigated Shs

47 U BG

6200

In Place St. Genevieve

Lms. H. gry. to tan, greenish IPs; crypto. to v.v.fn.xln; hvy trs. to v. abn. micro-oolitic & /or sli to fraly. Qtz. Sdy. - v.v.fn. gr ang.; matrix trs. sub-chlk, sub-sucro. to trs. packstn.; dul. yel. fluor; No Cut; No Visible Porosity

45U BG

40U BG

St. Louis

6259 - 3561

Lms. trs. wht. to crm-chlk & tan, grnish. IP's; crypto to v.v.fn.xln; v. to extrly. oolitic (sm, med & lg) matrix chlk, sub-chlk, sub-sucro & packstn.; dul. lt. yel. fluor; No Cut; No Vis Por w/ trs chert gry to tan trans. to opaque

WOB 38000
RPM 75
SPM 110
PP 1400

Lms. extr. abn wht. to crm-chlk w/ chlk oolites IPs & tan; crypto to v.v.fn.xln; v. to extrly oolitic (med to lg); matrix chlk, sub-chlk, trs sub sucro & packstn dul. yel. fluor.; No Cut; No Vis Por w/ abn chert Replaced oolitic Lms to oolitic Chert crm to tan, & crm, gry to tan, opq. to trans.

38U BG

6300

6288-6329 Lms. trs wht. to crm chlk w/ chlk oolites IPs and grayish tan to tan; crypto to v.v. fn. xln., v. to extrly. oolitic (sm, med & lg); matrix trs chlk, sub-chlk, sub-sucro & packstn; dul. lt. yel. fluor; No Cut; No Vis Por

v. to extrly oolitic (med to lg); matrix chlk, sub-chlk, trs sub-sucro + packstn dul. yel. fluor.; No cut; No Vis Por w/abn. chert Replaced oolitic lms. to oolitic Chert crm to tan,

38U BG

6300

+ crm; gry to tan; opq. to trans.

6288-6329 Lms. trs wht. to crm chlk w/chlk oolites IP's and grayish tan to tan; crypto to v.v. fn. x/n., v. to extrly. oolitic (sm, med to lg); matrix trs chlk, sub-chlk, sub-sucro + packstn; dul. lt. yel. fluor; No Cut; No Vis Por w/trs chert gray to tan; trans/to opaque Lms. grayish. tan to tan; crypto to trs v.v. fn. x/n.; v. to extrly oolitic (lg to med + trs sm); matrix trs chlk, sub chlk + trs sub-sucro.; dul. lt. to dul. yel fluor.; No Cut; No Vis Por + trs. Chert wht to gray, frosty w/dead blk oil inclusions trans/to opaque

6341-6396 Lms. trs. wht. to crm. chlk + grayish. tan to tan; crypto. to v.v. fn. x/n.; firly. to extrly. oolitic (med to lg + sm); matrix, trs. sub-chlk, sub-sucro + packstn; dul. lt. yel. fluor.; No Cut; No Vis. Por. w/trs. to occ. trs Chert wht., gry. to tan; trans/ to opaque; w/trs of tr. w/dead blk. oil inclussions + sh trs. chert gry; Replaced oolitic Lms. to oolitic Chert; opque

35U BG

6400

Lms. extr. abn. wht. to crm-chlk w/chlk oolites IP's, and crm to tan; crypto. to v.v. fn. x/n.; v. to extrly. oolitic (med to lg + trs sm.); matrix abn. chlk, abn sub chlk sh trs sub-sucro and packstn; dul. lt. to lt. yel. fluor; No Cut No visible Porosity

WOB 35000
RPM 80
SPM 58
PP 1200

Lms. similar 6341-6396 w/only trs chert crm, gry to tan; opque to trans/.

Lms. gray/sh. tan to tan; crypto. to v.v. fn x/n; sub-chlk trs sub-sucro. packstn + trs. sub-lithographic platty; dul. yel. fluor; No Cut No Vis Por, trs. to occ trs Chert wht, crm, gry to tan, opque,

Lms. tan, gray/sh IP's; crypto. to occ. fn x/n.; sl/to v. oolitic (med, lg + trs sm); matrix chlk, sub-chlk, sub-sucro + trs packstn; dul. yel. fluor; No Cut No vis Por w/trs Chert gray to tan opque to trans/

30U BG

Lms w/chert similar 6452-6470

Lms w/chert similar 6470-6483 poss dolomitic IP's

6500

Lmy. Dolo. to Polo. Lm. lt. gry., tanish IP's to tan; crypto. to occ fn x/n.; trs. chlk, trs sub-chlk, sub-sucro + packstn; sl/to Abn phantom oolitic to trs oolitic (med, lg + trs. sm); dul yel. fluor.; No Cut; No Vis Por w/sl/. trs. Chert wht., gry to tan; opque

Interbedded Limestones & Faster prig lms; sl/ dolo IP's; tan, gry/sh. IP's; tan. gry.,

25U BG

crypto. to v.v. fn. x/n; phantom oolitic to firly to v. oolitic (med, lg + trs sm) matrix chlk, sub chlk sub-sucro to trs sucro. + trs packstn; + trs dul. lt. yel. fluor; No Cut; No Vis Por. to trs