PI NUMBER: 045 23718 prizontal Hole Oil & Gas	OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)			Approval Date: Expiration Date:	01/11/2018 07/11/2018	
	F	PERMIT TO DRILL				
	<u>1</u>					
WELL LOCATION: Sec: 17 Twp: 18N Rge:	24W County: ELLIS					
SPOT LOCATION: NW NW NE NE	FEET FROM QUARTER: FROM	NORTH FROM EAST				
	SECTION LINES:	250 1290				
Lease Name: HURST-BOUGHAN		8 3H	Well will be	250 feet from nearest ι	init or lease boundary.	
Operator EOG RESOURCES INC Name:		Telephone: 4052463212		OTC/OCC Number:	16231 0	
EOG RESOURCES INC 3817 NW EXPRESSWAY STE 500			SSE A STEFFY			
OKLAHOMA CITY, OK	73112-1483	403	9 TINCHER ROAD	)		
	75112-1405	IND	IANAPOLIS	IN 46221-		
2 3 4 5		7 8 9 10				
Spacing Orders: 599494	Location Exception O	orders:	In	creased Density Orders:		
Pending CD Numbers: 201706484 201706483			– – Sp	pecial Orders:		
Total Depth: 15619 Ground Elevation	2266 Surface C	asing: 1500	Depth	to base of Treatable Water-Be	earing FM: 580	
Under Federal Jurisdiction: No	Fresh Water S	Supply Well Drilled: No		Surface Water used	d to Drill: Yes	
PIT 1 INFORMATION		Approved Me	thod for disposal of Drillin	g Fluids:		
Type of Pit System: CLOSED Closed System Mea Type of Mud System: WATER BASED	ns Steel Pits	D. One time	land application (REQL	JIRES PERMIT)	PERMIT NO: 17-3329	
Chlorides Max: 100000 Average: 5000	E. Haul to Co	E. Haul to Commercial pit facility: Sec. 21 Twn. 14N Rng. 21W Cnty. 129 Order No: 376462				
Is depth to top of ground water greater than 10ft below	H. SEE MEM	10				
Within 1 mile of municipal water well? N						
Wellhead Protection Area? N						
Pit is located in a Hydrologically Sensitive Are	а.					
Category of Pit: C						
Liner not required for Category: C						
Pit Location is BED AQUIFER						
Pit Location Formation: CLOUD CHIEF						

PIT 2 INFORMATION Type of Pit System: CLOSED Closed System Means Steel Pits Type of Mud System: OIL BASED Chlorides Max: 300000 Average: 200000 Is depth to top of ground water greater than 10ft below base of pit? Y Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: C Liner not required for Category: C

Pit Location is BED AQUIFER Pit Location Formation: CLOUD CHIEF

## HORIZONTAL HOLE 1

Sec 08	Twp	18N	Rge	24W	C	ounty	ELLIS
Spot Location	n of En	d Point	: N\	N N	١E	NE	NW
Feet From:	NOF	RTH	1/4 Se	ction l	_ine:	50	)
Feet From:	WE	ST	1/4 Se	ction I	Line:	21	57
Depth of Dev	iation:	9051					
Radius of Tur	Radius of Turn: 940						
Direction: 340							
Total Length: 5092							
Measured Total Depth: 15619							
True Vertical Depth: 9179							
End Point Location from Lease,							
Unit, or Property Line: 50							

Notes:	
Category	Description
DEEP SURFACE CASING	11/6/2017 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
HYDRAULIC FRACTURING	11/6/2017 - G71 - OCC 165:10-3-10 REQUIRES:
	1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;
	2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,
	3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG
МЕМО	11/6/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201706483	11/9/2017 - G58 - (I.O.) 8-18N-24W X599494 MRMN 3 WELLS NO OP NAMED REC 1/3/2018 (THOMAS)

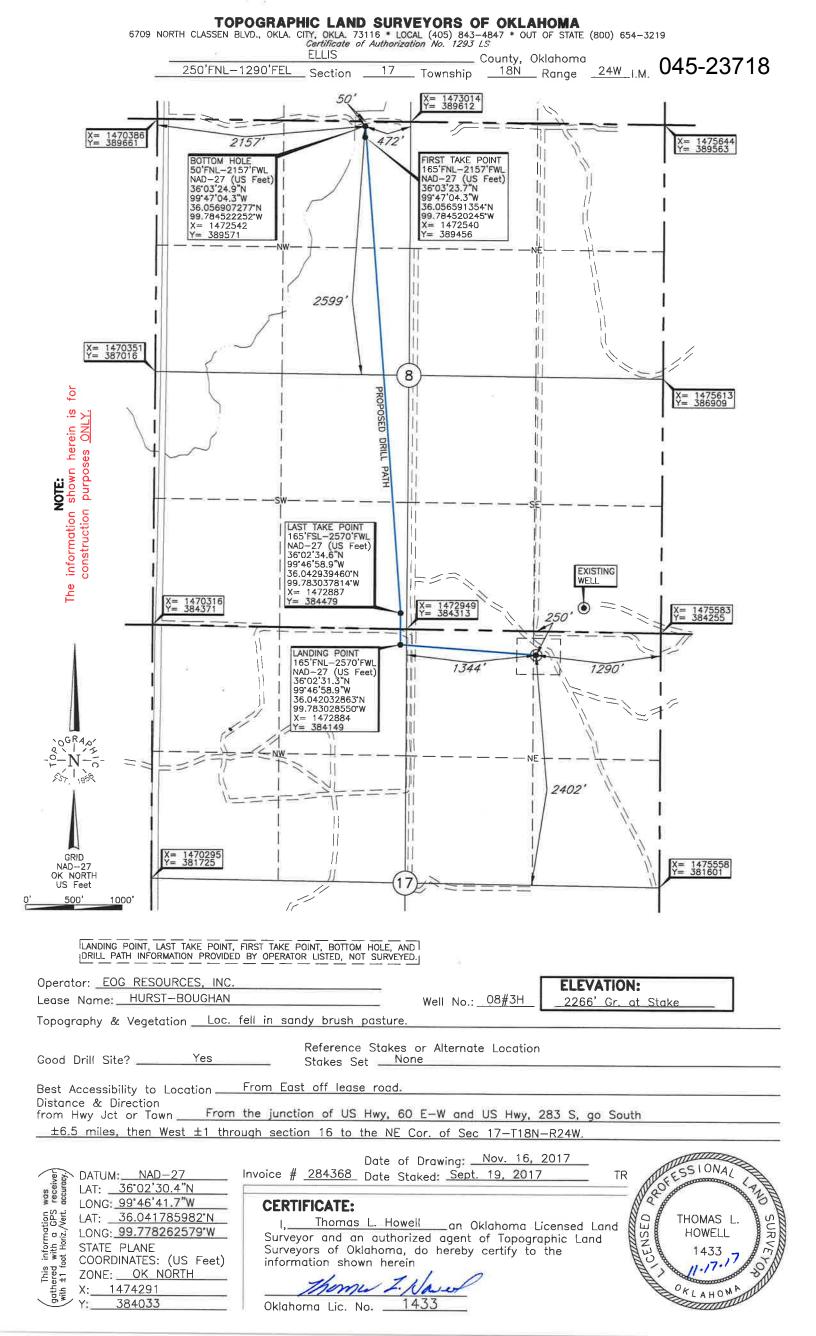
045 23718 HURST-BOUGHAN 8 3H

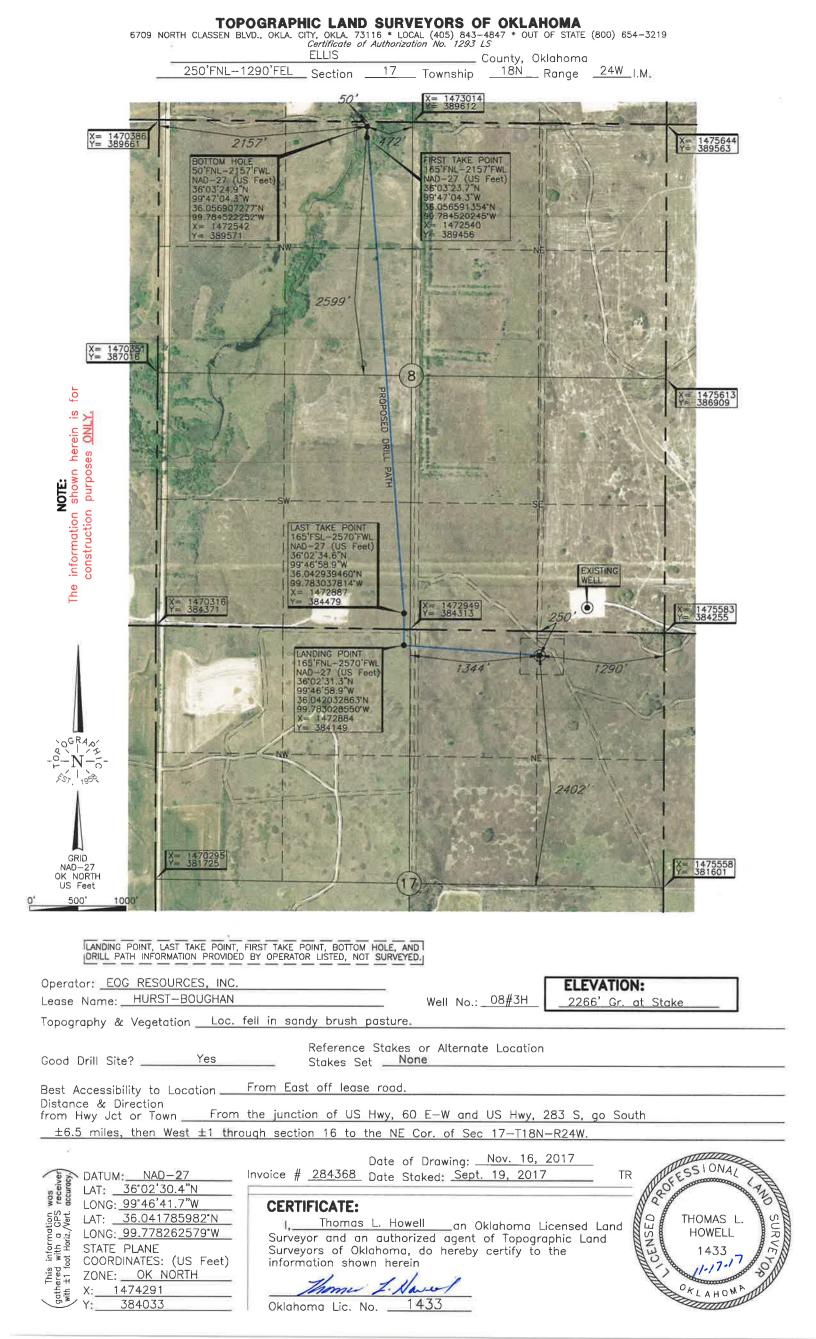
PENDING CD - 201706484

SPACING - 599494

Description

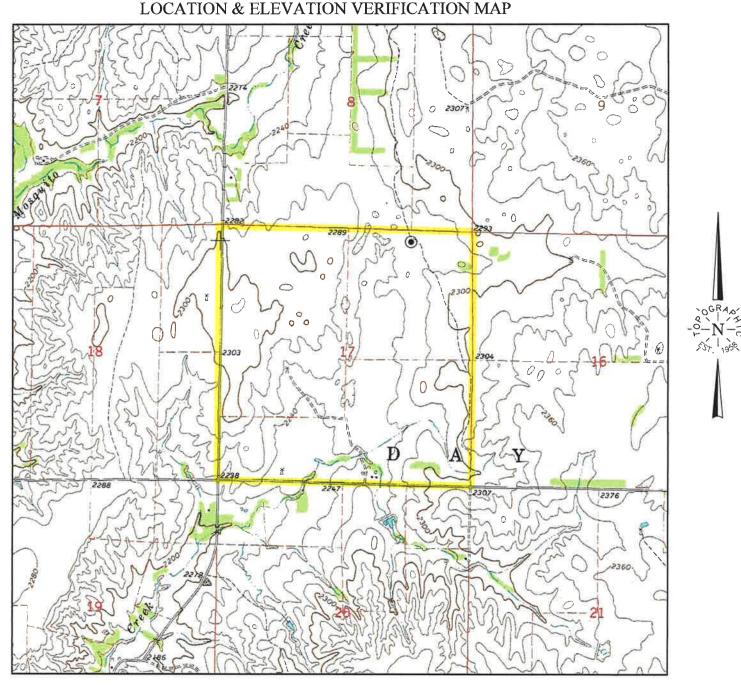
11/9/2017 - G58 - (I.O.) 8-18N-24W X599494 MRMN COMPL. INT. NCT 165' FSL, NCT 2570 FWL, NCT 165' FNL, NCT 2157' FWL NO OP NAMED REC 1/3/2018 (THOMAS) 11/9/2017 - G58 - (640)(HOR) 5-18N-24W EST MRMN, OTHERS POE TO BHL NCT 660' FB (SUPERSEDE NON-PRODUCING NON-HORIZONTAL SPACING UNITS; COEXIST WITH PRODUCING NON-HORIZONTAL SPACING UNITS)





## **TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**

Surveying and Mapping for the Energy Industry 6709 North Classen Blvd. Oklahoma City, OK 73116 www.topographic.com Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219



Sec. 17	Twp	18N	_ Rng	24W	IM
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County ELLIS State OK

Operator \_\_\_\_\_EOG RESOURCES, INC.

Description \_\_250'FNL-1290'FEL

Lease HURST-BOUGHAN 08#3H

Elevation	2266' Gr. at Stake	
U.S.G.S. Topograph Quadrangle Map	<sup>ic</sup> ARNETT SE, OK	

Above Background Data from U.S.G.S. Topographic Map Scale: 1"=2000'

Contour Interval \_\_\_\_\_ 20'

When elevation is shown hereon it is the ground elevation of the location stake. Review this plat and inform us immediately of any possible discrepancy.



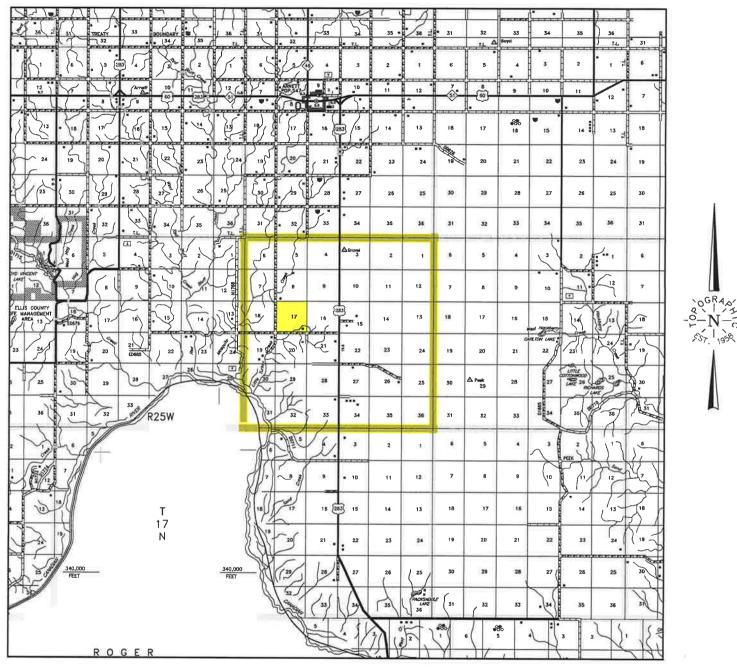
LAND SURVEYORS OF OKLAHOMA

GRA

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VICINITY MAP



Scale: 1'' = 3 Miles

OGRAD

-0

Sec. <u>17</u> Twp. <u>18N</u> Rng. <u>24W</u> IM

County\_\_\_\_ELLIS State OK

Operator \_\_\_\_ EOG RESOURCES, INC.



