API NUMBER: 145 23426

Oil & Gas

Straight Hole

OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)

Approval Date:	01/08/2020
Expiration Date:	07/08/2021

PERMIT TO DRILL

WELL LOCATION: Sec: 15 Twp: 15N Rge: 16E	County: WAG	ONED		
WELL LOCATION: Sec: 15 Twp: 15N Rge: 16E SPOT LOCATION: C SW SW NE			AST	
	SECTION LINES:	2310 23	310	
Lease Name: COOK	Well No:	1-15V	Well wi	II be 330 feet from nearest unit or lease boundary.
Operator IRON HAWK ENERGY GROUP JV Name:		Telephone: 9186	453701	OTC/OCC Number: 23625 0
IRON HAWK ENERGY GROUP JV 321 S BOSTON AVE STE 201			ROBERT COOK	NICO POAD
TULSA, OK	74103-3305		12300 SOUTH MI TULSA	NGO ROAD OK 74008
1 DUTCHER 2 3 4 5	Depth 1300 Location Exception	6 7 8 9 10		Depth
Spacing Orders: 201227 Pending CD Numbers: 202000007	Location Exception	Orders.		Increased Density Orders: Special Orders:
Total Depth: 1400 Ground Elevation: 541	Surface (Casing: 200		Depth to base of Treatable Water-Bearing FM: 130
Under Federal Jurisdiction: No	Fresh Water	Supply Well Drilled: 1	No	Surface Water used to Drill: No
PIT 1 INFORMATION		Appro	ved Method for disposal of	Drilling Fluids:
Type of Pit System: ON SITE	A. Eva		Evaporation/dewater and backfilling of reserve pit.	
Type of Mud System: AIR		B. Solidification of pit contents.		
Is depth to top of ground water greater than 10ft below bas Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 4	e of pit? Y	_		
Liner not required for Category: 4				
Pit Location is ALLUVIAL				

Notes:

Pit Location Formation: ALLUVIUM

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

Category Description

HYDRAULIC FRACTURING 12/20/2019 - 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

PENDING CD - 202000007 1/8/2020 - G56 - (E.O.) NE4 15-15N-16E

X201227 DTCR, OTHERS COMPL INT NCT 330' FSL, NCT 330' FWL

IRON HAWK ENERGY GROUP JV

REC 1/6/2020 (MOORE)

12/31/2019 - G56 - (160) N2 15-15N-16E **SPACING - 201227**

EXT 177930 DTCR, OTHERS

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA 13800 Wireless Way, Okla. City, OK. 73134 * LOCAL (405) 843-4847 *
Certificate of Authorization No. 1293 LS * OUT OF STATE (800) 654-3219 WAGONER County, Oklahoma 2310'FNL -2310'FEL 15 _____15N___ Range ____16E___I.M. _ Township Section 145-23426 2310' 330 2310'-X 2715267 Y 291575 (330') 15 NW/4-SW/4 NE/4-SW/4 GRID NAO-27 OK NORTH SE/4-SW/4 Scale: 1" = 1000' LOT 1 1000' NOTES: Distances shown in (parenthesis) are calculated based upon the Quarter Section being 2640 feet, those shown in [brackets] are based on GLO (General Land Office) distances and have NOT been measured on the ground. • THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY Operator: IRON HAWK ENERGY **ELEVATION:** Lease Name: COOK Well No.: 1-15V 541' Gr. at Stake Topography & Vegetation Loc. fell in open sod field Reference Stakes or Alternate Location Good Drill Site? _ Stakes Set _ From East off trail road Best Accessibility to Location _ Distance & Direction from Hwy Jct or Town From Jct. St. Hwy. 51 B and St. Hwy. 104, West of Porter, OK, go ±2.0 mi. South on St. Hwy. then ±1.0 mi. West, then ±1.25 mi. South to county road N4150, then ±1.8 mi. South on county road N4150, DA. DA. then ±1.0 mi. East on county road E0840, then ±1.0 mi. South on county road N4160, then ±1.0 mi. East on county road E0850 to the NE Car. of Sec. 15-T15N-R16E Nov. 12, 2019 Date of Drawing: DATUM: NAD-27 Project # <u>131506</u> Date Staked: <u>Nov. 08</u> LAT: 35°46'39.0"N LONG: 95'35'46.8"W CERTIFICATE: LAT: __35.777507346° N DAN W. ROGERS SURVE an Oklahoma Licensed Land LONG: 95.596326648° W ם בין Surveyor and an authorized agent of Topographic Land O & LAHOWA STATE PLANE Surveyors of Oklahoma, do hereby certify to the COORDINATES: (US Feet) information shown herein ZONE: __ OK NORTH 2712949 291845 Oklahoma Lic. No.