WELLLOCATION: See: 1 Transmitter County: Count	PI NUMBER: 017 25455 prizontal Hole Oil & Gas	OIL & GAS I OKLAHOI	CORPORATION COMMISS CONSERVATION DIVISIO P.O. BOX 52000 MA CITY, OK 73152-2000 Rule 165:10-3-1)	Approval Date	
SPCTLOCATION: W		P	PERMIT TO DRILL		
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Labor Doublink (m) Loss Name: Hu Year (K) Year (K) Lesse Name: BIG BROWN 6-710-5 Well No: 2320 Lesse Name: BIG BROWN 6-710-5 Well No: 2320 Charter Market Sources LLC Talephone: 400 9989453 OTC/OCC Number: 24127 0 ROAN RESOURCES LLC Taron HERTZ QUAIL SPRINGS PKWY OK 73090 JANET GATZ 13335 SW 89TH UNION CITY OK 73134-2641 JANET GATZ 13335 SW 89TH UNION CITY OK 73090 73090	WELL LOCATION: Sec: 31 Twp: 11N Rge: 6	W County: CANAD	DIAN		
Hart Zadi Viel No: 200H Viel No: 200H Viel No: 200H ROAN RESOURCES LLC Totephone: 14701 HERTZ QUAIL SPRINGS PKWY JANET GATZ 0KLAHOMA CITY, 0K 73134-2841 JANET GATZ 13335 SW 89TH UNION CITY 0KLAHOMA CITY, 0K 7334-2841 Name Pormation(s) (Permit Valid for Listed Formations Only): Name Depth Name Depth 1 MillSSSPPIAN 1 MillSSSPPIAN 2 7 3 10 Stating Orders: 201902304 201902300 201902305 201902301 Coation Exception Orders: Prior Heritz Multidotion: No Presh Water Supply Viel Differ: No Special Orders: Special Orders: 201902301 201902301 Total Depth: 2039 Viel Heritz Multidotion: No Presh Water Supply Viel Differ: No Special Orders: Surface Water used to Drift: No Special Orders: Surface Water used to Drift: No Prior Heritz Multidoton: No Prior Herit Mult	SPOT LOCATION: NW SW SW SE	FEET FROM QUARTER: FROM S	OUTH FROM EAST		
Operation Nmme RAAN RESOURCES LLC 14701 HERTZ QUAIL SPRINGS PKWY OKLAHOMA CITY, OK 73134-2641 JANET GATZ 13385 SW 89TH UNION CITY OK 73090 Formation(s) (Permit Valid for Listed Formations Only): Name Name Depth Mare Depth 0 1 Missississippion 01108 0 0 0 0 5 0 0 7 0 7 0 0 5 0 0 7 0 7 0 0 5 0 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 0 7 0 0 7 0 </th <th></th> <th>SECTION LINES: 4</th> <th>40 2320</th> <th></th> <th></th>		SECTION LINES: 4	40 2320		
Name: District Mathematical Controls District Mathematical Controls ROAN RESOURCES LLC 14701 HERTZ QUAL SPRINGS PKWY OKLAHOMA CITY, JANET GATZ 18385 SW 89TH UNION CITY JANET GATZ 18385 SW 89TH UNION CITY Name Depth Name Depth 1 Mississippina 0198 2 7 3 9 5 10 Spacing Orders: 201902204 201902205 201902205 201902206 201902206 201902206 201902206 201902206 201902206 201902206 Spacial Orders: Pending CD Numbers: 201902206 201902206 Spacial Orders: Vider Federal Junidiction: No Freeh Water Supply Well Drilled: No System: OX STE Type of Pis System: A Engonation/Kowier and backling of rearve pit. Type of Pis System: WATE BASED Choiding Hard Supplem: N State of Vider Field of Tridepolation - (REQUIRES PERMIT) PERMIT NO: 19- H SEE MEMO H Weithin 1 mile of municipage water weft? N Weithin 1 mile of municipage state wefts. Content Hard and application - (REQUIRES PERMIT) Net is la located in a Hytorelogogeally Sensitive Area. <	Lease Name: BIG BROWN 6-7-10-6	Well No: 2	2MXH	Well will be 440 feet from ne	arest unit or lease boundary.
14701 HERTZ QUALL SPRINGS PKWY JANET GATZ 18385 SW 897H 18385 SW 897H UNION CITY OK 7 3 1 MISSISSIPPIAN 2 7 3 9 5 10 Spacing Orders: Increased Density Orders: 201902205 201902204 201902205 201902205 201902206 201902205 201902201 Surface Casing: 1500 Under Federal Jurisdiction: No Yee of Pi System: ON SITE Type of MS System: WATER BASED Chorders Kas: 5000 Average: 3000 No Net in link of mologeneating reserve pil. B. Soliditation of pin Onlines: Pipe of MS System: N Chorder Reard Jurisdiction : No Freah Water Supply Well Drillet: No Surface Based A Exportation/devolatin and bachiling of reserve pil.			Telephone: 4058968453	OTC/OCC Numbe	r: 24127 0
14701 HERTZ QUALL SPRINCS PKWY OKLAHOMA CITY, OK 7 1 Mississier 1 Mississier 1 Mississier 2 7 3 7 3 9 5 10 Stating Orders: 289509 Location Exception Orders: Increased Density Orders: 201902305 201902305 201902306 201902305 201902301 Station Exception Orders: Total Depth: 200 Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Matter used to Drill: No Put Intercent and Laurisdiction: No First Water Supply Well Drilled: No Surface Matter used to Drill: No Put Intercent and backfilling of reserve pit. B. Solidication of pit conters. Dype of Mod System: WSTE A. Evaporation/dewater and backfilling of reserve pit. Physitem: No Surface Matter used to Drill: No Stationation of pit conters. D. One time land application - (REQUIRES PERMIT)<	ROAN RESOURCES LLC		JANET	GATZ	
OKLAHOMA CITY, OK 73134-2641 Window Variable Variable Variable Formation(s) (Permit Valid for Listed Formations Only): Name Depth Name Depth Name Depth 1 MISSISSIPPIAN 10198 6 2 7 3 9 5 0 9 5 5 10 5 9 Stacing Orders: 201902304 Special Orders: Special Orders: 201902305 201902306 Special Orders: Special Orders: 201902306 201902306 Special Orders: Special Orders: 1 Total Depth: 20398 Ground Elevation: 1279 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 280 Under Federal Jurisdiction: No Fresh Water Supply Weil Drillet: No Surface Water used to Drill: No Proved Method for disposal of Drilling Fluxics: Type of PAI System: WATER RASED A Engopration of Water Board or Drillers: D. One time land application - (REQUIRES PERMIT) PERMIT NO: 18- Prior Matrix System: WATER RASED N N N N Velinheed Pr	14701 HERTZ QUAIL SPRINGS PKW	Y			
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201902305 201902300 201902301 Total Depth: 20398 Ground Elevation: 1279 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 290 Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No Surface Water used to Drill: No PIT 1 INFORMATION Approved Method for disposal of Drilling Fluids: Type of Pit System: ON SITE A. Evaporation/dewater and backfilling of reserve pit. Type of Pit System: WATER BASED B. Solidification of pit contents. Chlorides Max: 5000 Average: 3000 B. Solidification of pit contents. Chlorides Max: 5000 Average: 3000 D. One time land application – (REQUIRES PERMIT) Vithin 1 mile of municipal water greater than 10t below base of pit? Y H. SEE MEMO Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 2 Liner not required for Category: 2	Spacing Orders: 288569	Location Exception Or	rders:	Increased Density Order	s:
Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No PIT 1 INFORMATION Approved Method for disposal of Drilling Fluids: A. Evaporation/dewater and backfilling of reserve pit. A. Evaporation/dewater and backfilling of reserve pit. Type of Mud System: WATER BASED B. Solidification of pit contents. Chlorides Max: 5000 Average: 3000 D. One time land application (REQUIRES PERMIT) PERMIT NO: 19- Is depth to top of ground water greater than 10ft below base of pit? Y H. SEE MEMO Melhead Protection Area? N Within 1 mile of municipal water well? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 2 Liner not required for Category: 2 Liner not required for Category: 2 Liner not required for Category: 2 Liner not required for Category: 2	201902305 201902300			Special Orders:	
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PIT 1 INFORMATION Approved Method for disposal of Drilling Fluids: Type of Pit System: ON SITE A. Evaporation/dewater and backfilling of reserve pit. Type of Mud System: WATER BASED B. Solidification of pit contents. Chlorides Max: 5000 Average: 3000 D. One time land application (REQUIRES PERMIT) Is depth to top of ground water greater than 10ft below base of pit? Y H. SEE MEMO Within 1 mile of municipal water well? N Permitter and the second sec	Under Federal Jurisdiction: No	Fresh Water S	upply Well Drilled: No	Surface Wat	er used to Drill: No
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Pit is located in a Hydrologically Sensitive Area. Category of Pit: 2 Liner not required for Category: 2					
Category of Pit: 2 Liner not required for Category: 2					
Liner not required for Category: 2					
PILLOCATION IS BED AQUIFER					
Pit Location Formation: DUNCAN					

PIT 2 INFORMATION Type of Pit System: ON SITE 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: 3 Liner required for Category: 3

Pit Location is BED AQUIFER Pit Location Formation: DUNCAN

HORIZONTAL HOLE 1

Sec 07	Twp	10N	Rge	6W	Co	ounty	GRADY
Spot Location of End Point: SW SW SW SE					SE		
Feet From:	SOL	JTH	1/4 Sec	ction L	ine:	65	
Feet From:	EAS	т	1/4 Se	ction L	ine:	23	80
Depth of Dev	iation:	9298					
Radius of Tur	m: 57	3					
Direction: 18	31						
Total Length: 10200							
Measured Total Depth: 20398							
True Vertical Depth: 10198							
End Point Lo	cation	from Le	ease,				
Unit, or Property Line: 65							

Notes:	
Category	Description
DEEP SURFACE CASING	5/1/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING
HYDRAULIC FRACTURING	5/1/2019 - 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
МЕМО	5/1/2019 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201902300	5/7/2019 - G75 - (I.O.) 6-10N-6W XOTHER X288569 MSSP 4 WELLS NO OP. NAMED REC 5-7-2019 (DENTON)

017 25455 BIG BROWN 6-7-10-6 2MXH

Category	Description
PENDING CD - 201902301	5/7/2019 - G75 - (I.O.) 7-10N-6W XOTHER X288569 MSSP 4 WELLS NO OP. NAMED REC 5-7-2019 (DENTON)
PENDING CD - 201902304	5/7/2019 - G75 - (I.O.) 6 & 7-10N-6W EST MULTIUNIT HORIZONTAL WELL XOTHER X288569 MSSP 50% 6-10N-6W 50% 7-10N-6W NO OP. NAMED REC 5-7-2019 (DENTON)
PENDING CD - 201902305	5/7/2019 - G75 - (I.O.) 6 & 7-10N-6W XOTHER X288569 MSSP X165:10-3-28 (C)(2)(B) WILL BE CLOSER THAN 600' TO EXISTING/PROPOSED WELL COMPL. INT. (6-10N-6W) NCT 150' FNL, NCT 0' FSL, NCT 990' FWL COMPL. INT. (7-10N-6W) NCT 0' FNL, NCT 150' FSL, NCT 990' FWL NO OP. NAMED REC 5-7-2019 (DENTON)
SPACING - 288569	5/7/2019 - G75 - (640) 6 & 7-10N-6W EXT OTHERS EXT 285956 MSSP

