RAILROAD COMMISSION OF TEXAS API No. FORM W-1 07/2004 42-475-37117 **OIL & GAS DIVISION** Drilling Permit# Permit Status: Approved 817374 APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER SWR Exception Case/Docket No. This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office. 1. RRC Operator No. 2. Operator's Name (as shown on form P-5, Organization Report) 3. Operator Address (include street, city, state, zip): 429574 JAGGED PEAK ENERGY LLC 1125 17TH STREET SUITE 2400 4. Lease Name 5 Well No DENVER, CO 80202-0000 RK-UTL 3031B-17 1H GENERAL INFORMATION ☐ Reclass X New Drill ☐ Recompletion ☐ Field Transfer Re-Enter 6. Purpose of filing (mark ALL appropriate boxes): - Amended Amended as Drilled (BHL) (Also File Form W-1D) X Horizontal (Also File Form W-1H) 7. Wellbore Profile (mark ALL appropriate boxes): ☐ Vertical Directional (Also File Form W-1D) ☐ Sidetrack 8. Total Depth 9. Do you have the right to develop the 10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? X Yes \square No Yes 15000 minerals under any right-of-way? SURFACE LOCATION AND ACREAGE INFORMATION 11 RRC District No. 12. County X Land ☐ Bav/Estuary ☐ Inland Waterway 13. Surface Location WARD 80 WINK 7.9 14. This well is to be located miles in a direction from which is the nearest town in the county of the well site. 17. Survey 19. Distance to nearest lease line: 15. Section 16. Block 18. Abstract No. 20. Number of contiguous acres in 17 A-U50 lease, pooled unit, or unitized tract: 11 UL 200 640.7 330 S (OFFLEASE) 520 ft from the W (OFFLEASE) 21. Lease Perpendiculars: line and line. ft from the 330 S (OFFLEASE) 520 ft from the W (OFFLEASE) line. ft from the line and 22. Survey Perpendiculars: 23. Is this a pooled unit? X Yes X No □ No (attach Form W-1A) 24. Unitization Docket No: **FIELD INFORMATION** List all fields of anticipated completion including Wildcat. List one zone per line. 28. Field Name (exactly as shown in RRC records) 26. RRC 27. Field No. 29. Well Type 30. Completion Depth Distance to Nearest Number of Wells on District No. Well in this Reservoir this lease in this Reservoir 08 71052900 PHANTOM (WOLFCAMP) Oil or Gas Well 15000 0.00 1 BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment) Certificate: [RRC STAFF Aug 1, 2016 5:26 PM]: Added abstract information for the SHL and the BHL. I certify that information stated in this application is true and complete, to the best of my knowledge. Mike Paluso Jul 28, 2016

Aug 2, 2016 10:28 AM(Current Version)

RRC Use Only

Data Validation Time Stamp:

Name of filer

Phone

(512)3278111

Date submitted

mpaluso@msmtx.com

E-mail Address (OPTIONAL)

Permit Status:

Approved

The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.

RAILROAD COMMISSION OF TEXAS **OIL & GAS DIVISION**

Form W-1H.

07/2004 Supplemental Horizontal Well Information

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

Permit #

817374

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

Approved Date: Aug 02, 2016

1. RRC Operator No. 429574	, ,	2. Operator's Name (exactly as shown on form P-5, Organization Report) 3. Leas JAGGED PEAK ENERGY LLC			ase Name RK-UT	TL 3031B-17	4. Well No. 1H		
Lateral Drainhole Location Information									
5. Field as shown or	5. Field as shown on Form W-I PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)								
6. Section 31	7. Block 17	8. Survey . UL / A-U70				9. Abstract .	10. County of BHL WARD		
	Lease Line Perpendiculars 330 • ft. from the	SOUTH	line, and	200	ft. from the	WEST	tine		
	ft. from the	SOUTH	line. and	200	ft. from the	WEST	line		
13. Penetration Point Lease Line Perpendiculars									
	330 ft. from the	SOUTH	line, and	200	ft. from the	EAST	line		
	330 ft. from the	SOUTH	line, and	200	ft. from the	EAST	line		

RAILROAD COMMISSION OF TEXAS

OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER 8	17374	DATE PERMIT ISSUED OR AMENDED Aug 02, 2016	DISTRICT	* 0	8	
API NUMBER	42-475-37117	FORM W-1 RECEIVED Jul 28, 2016	COUNTY	WAF	RD	
TYPE OF OPERATION NEW	ON / DRILL	WELLBORE PROFILE(S) Horizontal	ACRES	640	0.7	
1125 17TH	EAK ENERGY L STREET SUITE CO 80202-0000		This permit revoked if	payment for for ommission is	vable assigned ma ee(s) submitted to not honored. 'elephone No:	y be the
LEASE NAME	RK-UTL	. 3031B-17	WELL NU	MBER	1H	
LOCATION	7.9 miles SW dir	rection from WINK	TOTAL DE	РТН	15000	
Section, Block and/or SECTION SURVEY UL	Survey	BLOCK ∢ 17 AḃS	stract ∢ U50		-	
	YEY LINES	500 # \M (OFFI FACE)	DISTANCE		ST LEASE LINE	,
DISTANCE TO SURV 330 ft. :	S (OFFLEASE)	520 ft. W (OFFLEASE)		200	J 14.	
330 ft. S DISTANCE TO LEAS 330 ft.	E LINES S (OFFLEASE)		DISTANCE	TO NEARES	ST WELL ON LE _D(s) Below	EASE
330 ft. S	E LINES S (OFFLEASE)			TO NEARES See FIEL ES * DEPTH	ST WELL ON LE	
330 ft. S DISTANCE TO LEAS. 330 ft. FIELD(s) and LIMITA FIELD NAME	E LINES S (OFFLEASE) TIONS: * S	520 ft. W (OFFLEASE)	ING PURPOSE	TO NEARES See FIEL ES * DEPTH ASE 15,000	ST WELL ON LE _D(s) Below WELL#	DIST
330 ft. S DISTANCE TO LEAS: 330 ft. FIELD(s) and LIMITA FIELD NAME LEASE NAME PHANTOM (WOLL RK-UTL 36	E LINES S (OFFLEASE) TIONS: * S	520 ft. W (OFFLEASE) EE FIELD DISTRICT FOR REPORTI	ACRES NEAREST LE	TO NEARES See FIEL ES * DEPTH ASE 15,000	ST WELL ON LE LD(s) Below WELL # NEAREST WE 1H	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

RAILROAD COMMISSION OF TEXAS

OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

	•			
PERMIT NUMBER 817374	DATE PERMIT ISSUED OR AMENDED Aug 02, 2016	DISTRICT * 08		
API NUMBER 42-475-37117	FORM W-1 RECEIVED . Jul 28, 2016	COUNTY WARD .		
TYPE OF OPERATION NEW DRILL	wellbore profile(s) Horizontal	ACRES 640.7		
OPERATOR JAGGED PEAK ENERGY I	429574 LLC	NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the		
1125 17TH STREET SUITI DENVER, CO 80202-0000	Commission is not honored. District Office Telephone No: (432) 684-5581			
LEASE NAME RK-UTI	WELL NUMBER 1H			
LOCATION 7.9 miles SW di	rection from WINK	TOTAL DEPTH . 15000		
Section, Block and/or Survey SECTION 11 SURVEY UL	BLOCK ₹ 17 ABŞTR.	ACT ∢ U50		
DISTANCE TO SURVEY LINES 330 ft. S (OFFLEASE)	520 ft. W (OFFLEASE)	DISTANCE TO NEAREST LEASE LINE 200 ft.		
DISTANCE TO LEASE LINES 330 ft. S (OFFLEASE)	. 520 ft. W (OFFLEASE)	DISTANCE TO NEAREST WELL ON LEASE See FIELD(s) Below		
	•			

FIELD(s) and LIMITATIONS:

SEE FIELD DISTRICT FOR REPORTING PURPOSES

FIELD NAME LEASE NAME

ACRES DE NEAREST LEASE

DEPTH

WELL# NEAREST WE DIST

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION

SWR #13 Formation Data

WARD (475) County

				<u> </u>	
Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	1,700	1,700	•	1	12/17/2013
YATES	2,000	2,800		2	12/17/2013
SEVEN RIVERS	2,375	2,375	•	3	12/17/2013
QUEEN	2,200	3,200		4	12/17/2013
GLORIETA	3,900	4,000	-	5	12/17/2013
SAN ANDRES	2,000	4,500	high flows, H2S, corrosive	6	12/17/2013
HOLT	4,600	4,800		7	12/17/2013
CLEARFORK	4,500	5,000		8	12/17/2013
DELAWARE	2,300	5,000	,	9	12/17/2013
TUBB	4,600	5,300		10	12/17/2013
WICHITA ALBANY	6,000	6,200	,	. 11	12/17/2013
CHERRY CANYON	4,800	7,800		12	12/17/2013
WADDELL'	7,600	9,700		13 ·	12/17/2013
BONE SPRINGS	4,700	9,800		14	12/17/2013
WOLFCAMP	6,000	12,750		15	12/17/2013
MONTOYA	14,500	14,500		16	12/17/2013
PENNSYLVANIAN	7,500	14,900	•	17	12/17/2013
ATOKA	12,000	15,000		18	12/17/2013
FUSSELMAN	6,400	17,500	-	19	12/17/2013
DEVONIAN	6,200	17,800		20	12/17/2013
ELLENBURGER ·	7,900	20,800	·	21	12/17/2013
<u> </u>	·		L		

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION

SWR #13 Formation Data

WARD (475) County

Formation .	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	1,700	1,700	•	1	12/17/2013
YATES	2,000	2,800		2	12/17/2013
SEVEN RIVERS	2,375	2,375	·	3	12/17/2013
QUEEN .	2,200	3,200	•	4	12/17/2013
GLORIETA	3,900	4,000		5	12/17/2013
SAN ANDRES	2,000	4,500	high flows, H2S, corrosive	6	12/17/2013
HOLT	4,600	4,800		7	12/17/2013
CLEARFORK	4,500	5,000	,	8	12/17/2013
DELAWARE	2,300	5,000		9	12/17/2013
TUBB	4,600	5,300		10	12/17/2013
WICHITA 'ALBANY	6,000	6,200		11 •	12/17/2013
CHERRY CANYON	4,800	7,800		12	12/17/2013
WADDELL	7,600	9,700	•	13	12/17/2013
BONE SPRINGS	4,700	9,800		14	12/17/2013
WOLFCAMP	6,000	12,750		15	12/17/2013
MONTOYA	14,500	14,500	•	16	12/17/2013
PENNSYLVANIAN	7,500	14,900		17	12/17/2013
ATOKA .	12,000	15,000	•	18	12/17/2013
FUSSELMAN	6,400	17,500		19	12/17/2013
DEVONIAN	6,200	17,800	·	20	12/17/2013
ELLENBURGER	7,900	20,800		21	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info



Groundwater Advisory Unit

Date Issued: 28 July 2016 **GAU Number:** 158019 Attention: JAGGED PEAK ENERGY LLC **API Number:** County: WARD 1125 17TH STREET SUITE RK-UTL 3031B-17 Lease Name: DENVER, CO 80202 Lease Number: **Operator No.:** 429574 1H Well Number: 15000 **Total Vertical Depth:** Latitude: 31.647825 Longitude: -103.205941 Datum: NAD27

Purpose: New Drill

Location: Survey-UL; Abstract-U50; Block-17; Section-11

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Allurosa, which is estimated to occur at a depth of 875 feet, must be protected.

Please send Gamma Ray/Porosity log of this well when it is available.

This recommendation is applicable for all wells drilled in this Section 11 on this Lease and in this County.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 07/28/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov Rev. 02/2014

