STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

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In the Matter of the Application of Berexco LLC for an Order Authorizing Unitization and Unit Operation of the Arroyo Unit in Stanton County, Kansas. Docket No.: 19-CONS-3269-CUNI

CONSERVATION DIVISION

License No.: 34318

PRE-FILED TESTIMONY

OF

Jake Eastes

May 3, 2019

- 1 Q. What is your name and business address?
- 2 A. Jake Eastes, 266 N. Main St. Wichita, KS 67202.
- 3 Q. By whom are you employed and in what capacity?
- A. I am employed by the Conservation Division of the Kansas Corporation Commission as a
 Geology Specialist and Research Analyst within the Conservation Division's Production and
 Underground Injection Control (UIC) Departments.
- 7 Q. Would you please briefly describe your educational background and work experience?
- 8 A. I was a Wellsite Geologist in Kansas for Musgrove Petroleum during the summer of 2014. I 9 graduated with a Bachelor of Science degree in Geology from Kansas State University in 10 2015. I then graduated with a Master of Science degree in Petroleum Geology from Fort Hays 11 State University (FHSU) in 2017. While at FHSU, I was employed by the United States 12 Geological Survey for a year and six months as a Hydrologic Technician Student Trainee. 13 After graduating from FHSU, I was employed for five months by Impac Exploration Services 14 as a Well Site/Mudlogging Geologist in the Texas Panhandle. I then started working for the 15 Kansas Corporation Commission in September of 2017.
- 16 Q. Have you previously testified before this Commission?
- 17 A. Yes.

18 Q. What duties does your position with the Conservation Division involve?

A. I provide technical support concerning various applications involving UIC wells, unitizations,
 horizontal wells, well location exceptions, alternate tract units, flaring, and vacuum or high
 volume pumps. I enforce the Commission's gas gathering and UIC regulations, I review gas
 well test reports, and I monitor monthly production from Hugoton/Panoma gas wells.

1 Q. Are you familiar with this docket, 19-CONS-3269-CUNI?

- 2 A. Yes.
- **3 Q.** How are you familiar with this docket?
- 4 A. I have thoroughly reviewed and personally worked this Application.

5 Q. What has the Operator applied for?

- A. The Operator has applied for authorization of the unitization and unit operation of the Arroyo
 Unit in Stanton County, Kansas.
- 8 Q. Have you reviewed the Application for compliance with K.S.A. 55-1303?
- 9 A. Yes
- Q. Does the Application contain a description of the unit area, pursuant to K.S.A. 551303(a)?
- 12 A. Yes, a description can be found on page one, lines 12-16 of the Application. It is also within
- 13 the attached operating agreement in Exhibit "A" Part 1 of the Application and on the plat map
- 14 provided as Exhibit "B" Part 1 of the Application.

15 Q. Does the Application contain a statement of the type of operations contemplated for the

16 unit area, pursuant to K.S.A. 55-1303(b)?

17 A. Yes, on page two, lines 11-19 of the Application, the Operator states:

18 "The operations to be conducted shall consist of secondary recovery by the injection 19 of water, gas, or other fluids or substances, or combinations thereof, deemed necessary or 20 desirable to increase the ultimate recovery of unitized substances from the unitized lands and formations. The unit working interest owners, as defined by K.S.A. 55-1302, may discontinue 21 22 or change, in whole or in part, any method of operation which, in their opinion, is no longer 23 in accord with good engineering or production practices, and other methods of operation may 24 be conducted or changes made by the unit working interest owners from time to time if 25 determined by them to be feasible, necessary, or desirable to increase the ultimate recovery of 26 unitized substances including, without limitation, methods of operation for tertiary recovery 27 and other enhanced recovery operations."

1	Q.	Does the Application contain a copy of the proposed plan of unitization, which the
2		applicant considers fair, reasonable, and equitable, pursuant to K.S.A. 55-1303(c)?
3	A.	Yes. A copy of the proposed plan of unitization is attached to the Application as Exhibit "A".
4		In paragraph 5 of the Application, the Operator states they believe the Unit Agreement and
5		Plan of Unitization for the Arroyo Unit to be fair, reasonable, and equitable.
6	Q.	Does the Application contain a copy of the proposed operating plan pursuant to K.S.A.
7		55-1303(d)?
8	A.	Yes. A copy of the proposed operating plan is attached to the Application as Exhibit "B" and
9		can be found on pages 42-88 of the Application.
10	Q.	Does the proposed operating plan cover the manner in which the unit will be supervised
11		and managed as required by K.S.A. 55-1303(d)?
12	A.	Yes. Article 3 of the proposed operating plan covers the manner in which the unit will be
13		supervised and managed.
14	Q.	Does the proposed operating plan address how costs will be allocated and paid as
15		required by K.S.A. 55-1303(d)?
16	A.	Yes. Article 11 of the proposed operating plan addresses how costs will be allocated and paid.
17	Q.	Does the Operator's Application contain everything that is required under K.S.A. 55-
18		1303(e)?
19	A.	Yes. K.S.A. 1303(e) requires the application contain an allegation of the facts required to be
20		found by the Commission under K.S.A. 55-1304. The Operator alleges facts that contain
21		everything that is required under K.S.A. 55-1304 on page three, lines 4-11 of the Application.

1	Q.	Have your reviewed the Application for compliance with K.S.A. 55-1304?
2	A.	Yes. K.S.A. 55-1304 requires the Commission find that the primary production from the pool
3		or proposed unitized area has reached a low economic level and without introduction of
4		artificial energy, abandonment of oil or gas wells is imminent; or that the unitized
5		management, operation, and further development of the pool or the proposed unit area is
6		economically feasible and reasonably necessary to prevent waste within the reservoir; that the
7		value of the estimated additional recovery of oil or gas substantially exceeds the estimated
8		additional cost incident to conducting such operations; and the proposed operation is fair and
9		equitable to all interest owners.
10	Q.	Do you recommend the Commission make a finding that the conditions listed in K.S.A.
11		55-1304 exist?
12	A.	Yes.
12 13	А. Q.	Yes. Please explain the basis for your recommendation. ?
13	Q.	Please explain the basis for your recommendation. ?
13 14	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline
13 14 15	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline in primary production is occurring across all leases and introducing artificial energy to the
13 14 15 16	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline in primary production is occurring across all leases and introducing artificial energy to the pool sought to be unitized is necessary in order to produce the remaining substantial quantities
13 14 15 16 17	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline in primary production is occurring across all leases and introducing artificial energy to the pool sought to be unitized is necessary in order to produce the remaining substantial quantities of oil or gas. The estimated value gained from implementing intervention in order to produce
13 14 15 16 17 18	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline in primary production is occurring across all leases and introducing artificial energy to the pool sought to be unitized is necessary in order to produce the remaining substantial quantities of oil or gas. The estimated value gained from implementing intervention in order to produce the remaining oil or gas from this pool greatly exceeds the cost to apply the intervention. By
 13 14 15 16 17 18 19 	Q.	Please explain the basis for your recommendation. ? A review of producing leases within the proposed unit area revealed that a significant decline in primary production is occurring across all leases and introducing artificial energy to the pool sought to be unitized is necessary in order to produce the remaining substantial quantities of oil or gas. The estimated value gained from implementing intervention in order to produce the remaining oil or gas from this pool greatly exceeds the cost to apply the intervention. By analyzing the Operator's Phase I and Phase II of their proposed tract participation and

1 Q. Have you reviewed the Application for compliance with K.S.A. 55-1305? 2 A. Yes. K.S.A. 55-1305 requires the Commission order providing for the unitization and unit 3 operation of a pool be based on terms and conditions that are just and reasonable and include 4 a plan for unit operations that covers all the requirements listed under K.S.A. 55-1305. 5 Q. What is the legal description of the unit area, as required by K.S.A. 55-1305(a)? 6 The Southwest Quarter (SW/4) of Section 14, the Southeast Quarter (SE/4) of Section 15, the A. 7 Southeast Quarter (SE/4) of Section 17, the East Half (E/2) of Section 20, All of Section 21, 8 All of Section 22, the West Half (W/2) of Section 23, the North Half of the Northeast Quarter 9 (N/2 NE/4) and the North Half of the Northwest Quarter (N/2 NW/4) of Section 27, and the 10 North Half (N/2) of Section 28, all in Township 29 South, Range 41 West, Stanton County, 11 Kansas. 12 Q. What is the nature of the operations contemplated, as required by K.S.A. 55-1305(b)? 13 A. The nature of the operations to be conducted shall consist of secondary recovery by the 14 injection of water, gas, or other fluids or substances, or combinations thereof, deemed necessary or desirable to increase the ultimate recovery of unitized substances from the 15 16 unitized lands and formations. 17 **Q.** How many separately owned tracts are within the unit area? 18 There are 16 separately owned tracts within the proposed unit area. A. 19 Q. Does the plan for unit operations include an allocation of all oil and gas to the separately 20 owned tract within the unit area, as required by K.S.A. 55-1305(c)? 21 A. Yes, the Operator's plan for unit operations includes an allocation of all oil and gas to the separately owned tracts within the area. The Operator states in their attached unit operating 22 23 agreement in Article 6, paragraph 6.1, "All Unitized Substances produced and saved shall be

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1		allocated to the several Tracts in accordance with the respective Tract Participation. The
2		amount of Unitized Substances allocated to each Tract, regardless of whether the amount is
3		more or less than the actual production of Unitized Substances from the well or wells, if any,
4		on such Tract, shall be deemed for all purposes to have been produced from such Tract." The
5		percentages of allocation is represented within the attached operating agreement as Exhibit
6		"A" Part 3 and Exhibit "A" Part 4.
7	Q.	Does the plan for unit operations include a provision for credits and charges among
8		working interest owners, as required by K.S.A. 55-1305(d)?
9	A.	Yes. Article 11 of the Operating Agreement found in Exhibit A is a provision for the credits
10		and charges among working interests owners.
11	Q.	Does the plan for unit operations include a provision for how costs shall be paid, as
12		required by K.S.A. 55-1305(e)?
13	A.	Yes. Exhibit C of the Operating Agreement attached to the Application details the accounting
14		procedures for the Arroyo Unit Operating Agreement.
15	Q.	Does the plan for unit operations include a provision for non-operating working interests
16		owners to be furnished with costs and expenses, as required by K.S.A. 55-1305(f)?
17	A.	Yes. Paragraph two of Exhibit C states that Non-Operating working interest owners will
18		receive a detailed statement on or before the last day of each month for their proportionate
19		share of the Joint Account.

1	Q.	Does the plan for unit operations include a provision regarding non-operating interest
2		owners wishing to have their respective share of the financial costs carried or otherwise
3		financed, pursuant to K.S.A. 55-1305(g)?
4	A.	Yes. Article 11.4 of the Operating Agreement provides for non-operating interest owners who
5		wish to have their respective share of the financial costs carried or otherwise financed.
6	Q.	Does the plan for unit operations include a provision for the supervision and conduct of
7		unit operations, as required by K.S.A. 55-1305(h)?
8	A.	Yes, within Exhibit B of the Application titled the Unit Operating Agreement for the Arroyo
9		Unit, Article Three includes provisions for the supervision and conduct of unit operations that
10		comply with K.S.A. 55-1305(h).
11	Q.	Does the plan for unit operations include a provision for voting procedures for working
12		interest owners, as required by K.S.A. 55-1305(i)?
13	A.	Yes. Exhibit B of the Application titled the Unit Operating Agreement (Operating Plan) for
14		the Arroyo Unit, Article Four outlines the Voting provisions and procedures for working
15		interest owners that complies with K.S.A. 55-1305(i).
16	Q.	Is there a time when the unit operations shall commence and terminate, as required by
17		K.S.A. 55-1305(j)?
18	A.	Yes, in regards to the commencement, the Operator states in Article 16, paragraph 16.1 of the
19		unit operating agreement plan that "This Agreement shall become effective upon the
20		expiration of the 30-day period set forth in Kan. Stat. §55-1317(c) if all mineral and Royalty
21		Owners and not less than ninety percent (90%) of the Working Interest Owners execute this
22		agreement. Otherwise, this Agreement shall become effective as of 7:00 A.M., Central
23		Standard Time on the first day of the calendar month following the issuance of the order

1		approving this Unit by the Kansas Corporation Commission." In regards to the termination of
2		unit operations the Operator states in Article 18, paragraphs 18.2 and 18.3 of the unit operating
3		plan "This Agreement may be terminated by Working Interest Owners owning a combined
4		Phase II Unit Working Interest of more than sixty percent (60%) or more whenever such
5		Working Interest Owners determine that Unit Operations are no longer profitable or feasible.
6		Upon termination of this Agreement, the further development and operation of the Unitized
7		Formation as a unit shall be abandoned, and Unit Operations shall cease. Each oil and gas
8		lease and other agreements covering lands within the Unit Area shall remain in force for one
9		hundred eighty (180) days after the date on which this Agreement terminates, and thereafter
10		for such further period as is provided by the lease or other agreement."
11	Q.	Is there a provision specifying the particular records the unit operator shall keep and
12		the accounting procedure the unit operator shall follow, pursuant to K.S.A. 55-1305(K)?
13	A.	Yes, attached as Exhibit C within the Operator's attached Unit Operating Agreement is the
14		proposed accounting procedure for the proposed unit.
15	Q.	Does the plan for unit operations include a provision for office expenses other than
16		reasonable overhead charges?
17	A.	No.
18	Q.	Under K.S.A. 55-1305, no plan providing for unit operations shall become effective
19		unless the plan has been approved in writing by owners who will be required to pay at
20		least 63% of the costs of unit operations. Has the applicant met that percentage?
21	A.	Yes, on page three, paragraph eight of the application the Operator states, "The Plan of
22		Unitization for the Arroyo Unit proposed by the Applicant has been approved in writing by at
23		least sixty-three percent (63%) of those persons required by the Unit Operating Agreement

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1		(Operating Plan) for the Arroyo Unit to pay the costs of unit operations, and by at least
2		seventy-five percent (75%) of the owners of the production or proceeds thereof that will be
3		credited to royalties, excluding overriding royalties or other like interests carved out of the
4		leasehold estate."
5	Q.	Under K.S.A. 55-1305(a)(1), no plan providing for unit operations shall become effective
6		unless approved in writing by owners of at least 63% of the production or proceeds that
7		will be credited to royalties. Under K.S.A. 55-1305(a)(2), the required percentage is 75%.
8		Has Applicant met the required percentage?
9	A.	Yes, as stated in my response to the previous question, the Operator has met this requirement.
10	Q.	Do you have a recommendation regarding whether the Commission should approve the
11		Operator's Application?
12	A.	Yes, I recommend the Commission grant the Operator's application to unitize their proposed
13		Arroyo Unit in order to prevent waste, protect correlative rights, and to produce remaining oil
14		and gas from the unitized pool more efficiently.
15	Q.	Does this conclude your testimony as of this date, May 3, 2019?
16	A.	Yes.

CERTIFICATE OF SERVICE

19-CONS-3269-CUNI

I, the undersigned, certify that a true copy of the attached Prefiled Testimony of Jake Eastes has been served to the following by means of electronic service on <u>May 3, 2019</u>.

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/S/ Paula J. Murray Paula J. Murray