# APPLICATION FOR POOL AND LEASE COMMINGLE, OFF-LEASE MEASUREMENT, SALES AND STORAGE Commingling proposal for the Whomping Willow Battery and Cedar Canyon 16-1 Battery

OXY USA INC requests to amend PLC-580 to add H Buck State #005, H Buck State #010, Harroun 15-2, Harroun 15 #008 and Harroun 22 #001 to the Whomping Willow Battery (F-15-T24S-R29E, LAT 32.13556, LONG -103.583394).

Cedar Canyon 16-1 Battery (D-16-T24S-R29E, LAT 32.22383, LONG -103.995892) process flow does not change from PLC-580. As established per previous amendments PLC-405-B and PLC-553, this battery does not share a sales meter with Whomping Willow Battery, so wells at the respective batteries are not commingled. However, Cedar Canyon 16-1 Battery will remain in this commingle permit because Cedar Canyon 16 State #2H, 6H and 12H are still in the process of being moved from Cedar Canyon 16-1 Battery. 16 Battery to Whomping Willow Battery.

### Wells to be added to Whomping Willow Battery

WELL	API	SURFACE LOCATION	DATE ONLINE BOPD		OIL GRAVITY	MSCFD	BTU/CF	BWPD
POOL: PIERCE CROSSING; BONE SPRING, EAST (96473)								
H Buck State #005	30-015-35042	L-15-24S-29E	Dec-2006	6	42.5	2	1224	12
H Buck State #010	30-015-34695	P-16-24S-29E	May-2006	5	42.5	5	1224	15
POOL: CEDAR CANYON; DELAWARE (11540)								
Harroun 15-2	30-015-29763	D-15-245-29E	Oct-1997	5	43	34	1290	73
Cedar Canyon 15 #001H	30-015-39857	M-15-24S-29E	Oct-2012	11	42.3	35	1275	40
Harroun 15 #008	30-015-30253	F-15-24S-29E	Dec-1993	3	42.0	36	1250	42
Harroun 22 #001	30-015-28639	D-22-245-29E	Feb-1997	3	42.3	6	1281	13

### Wells currently approved to be sent to Whomping Willow Battery per PLC-580

Well	ΑΡΙ	Surface Location	Date Online	BOPD	OIL GRAVITY	MSCFD	BTU/CF	BWPD
POOL: CEDAR CANYON; DELAWARE (11540)								
Harroun 10 #1	30-015-30375	N-10-24S-29E	Jul-2004	6	42.9	22	1289	46
Harroun 10 #2	30-015-31709	M-10-24S-29E	Jul-2004	3	42.9	2	1289	5
Harroun 10 #3	30-015-32617	L-10-24S-29E	Aug-2004	5	42.9	15	1289	17
Harroun 15 #7	30-015-29987	C-15-24S-29E	Jul-2004	5	42.9	3	1289	12
Harroun 15 #8	30-015-30253	F-15-24S-29E	Jul-2004	3	42.9	36	1289	42
Harroun 15 #14	30-015-32620	D-15-24S-29E	Jun-2005	5	42.9	1	1289	8
Harroun 15 #005	30-015-29310	B-15-24S-29E	May-1997	3	42.9	2	1255	4
Cedar Canyon 15 #001H	30-015-39857	M-15-24S-29E	Oct-2012	11	42.3	35	1275	40
Harroun 15 #008	30-015-30253	F-15-24S-29E	Dec-1993	3	42.0	36	1250	42
Harroun 22 #001	30-015-28639	D-22-24S-29E	Feb-1997	3	42.3	6	1281	13
POOL: CORRAL DRAW; BONE SPRING (96238)								
Cedar Canyon 17 Fee #1H	30-015-42058	A-17-24S-29E	Aug-2014	56	42.9	187	1292	210
POOL: PIERCE CROSSING; BONE SPRING, EAST	POOL: PIERCE CROSSING; BONE SPRING, EAST (96473)							
Harroun 15 #15	30-015-33317	E-15-24S-29E	Oct-2004	15*	42.9	50*	1288	100*
Harroun 15 #16A	30-015-33823	L-15-24S-29E	May-2005	0	42.9	0	1307	0
Harroun 15 #17	30-015-33822	M-15-24S-29E	Jan-2008	16	42.9	153	1307	64
Harroun 10 #004	30-015-32618	K-10-24S-29E	Dec-2003	2	42.9	1	1307	3
Harroun 22 #003	30-015-33821	A-22-24S-29E	Mar-2006	1	42.9	11	1307	4
Cedar Canyon 15 #2H	30-015-41032	M-15-24S-29E	Aug-2013	18	43	161	1307	79
Cedar Canyon 15 #3H	30-015-41594	L-15-24S-29E	Sep-2014	43	42.9	335	1328	215
Cedar Canyon 22 #2H	30-015-41327	D-22-24S-29E	Aug-2013	41	42.9	382	1315	108
OOL: PIERCE CROSSING; BONE SPRING, EAST (96473)								
Cedar Canyon 15 #4H	30-015-41291	E-15-24S-29E	Aug-2013	123	43	469	1307	578
Harroun 9 #1	30-015-34997	P-09-24S-29E	Jan-2008	3	43	10	1308	8
Harroun 9 #3H	30-015-41488	P-09-24S-29E	Feb-2014	107	43	474	1307	295

\*estimated 6 month stabilized rate

Well	ΑΡΙ	Surface Location	Date Online	BOPD	OIL GRAVITY	MSCFD	BTU/CF	BWPD
POOL: PIERCE CROSSING; BONE SPRING, EAST	OOL: PIERCE CROSSING; BONE SPRING, EAST (96473)							
Refried Beans CC 15_16 State Com 12H	30-015-45215	H-15-24S-29E	Jun-2019	452	45.7	4077	1275	901
Refried Beans CC 15_16 State Com 13H	30-015-45216	H-15-24S-29E	Jun-2019	450	45.7	3500	1271	1010
Refried Beans CC 15_16 State Com 14H	30-015-45217	I-15-24S-29E	Jun-2019	674	45.7	3869	1270	1217
POOL: PURPLE SAGE;WOLFCAMP (GAS) (98220)								
Whomping Willow CC 15_16 State Com 44H	30-015-45218	I-15-24S-29E	Jun-2019	747	45.7	4691	1265	1838
Well	ΑΡΙ	Surface Location	Date Online	BOPD	OIL GRAVITY	MSCFD	BTU/CF	BWPD
POOL: PIERCE CROSSING; BONE SPRING, EAST (96473) - STATE LEASE NO. VA-0836-0001								
Cedar Canyon 16 State #2H	30-015-41024	P-16-24S-29E	Jun-2013	2	45	0	1297	7
Cedar Canyon 16 State #6H	30-015-41595	L-15-24S-29E	Sep-2014	57	45	93	1290	157
Cedar Canyon 16 State #12H	30-015-42683	M-15-24S-29E	Mar-2015	72	45	398	1283	500
H Buck State #003	30-015-33820	A-16-24S-29E	Jun-2005	88	42.5	568	1224	208
H Buck State #004	30-015-34444	H-16-24S-29E	Feb-2006	36	42.5	245	1224	122

# **PROCESS DESCRIPTION**

Production from all wells will flow to the header at Whomping Willow Battery. Refried Beans CC 15-16 State Com 12H, 13H, 14H and Whomping Willow CC 15-16 State Com 44H currently have dedicated 6' X 20' test separators. The other wells share a 6' X 20' production separator and a 4' X 10' test separator. Each test separator is equipped with an oil turbine meter, gas orifice meter and water turbine meter. After separation, oil production is sent through a line heater then an 8' X 20' heater-treater. It then flows through a 36" vapor recovery tower before flowing to three oil storage tanks. From the tanks, the oil is pumped through a LACT meter and sent to sales.

For internal metering purposes, two heat exchangers, an 8' X 20' stabilizer and an oil check meter are also installed upstream of the line heater, and tie-in upstream of the heater-treater.

Gas production is combined after the three-phase separators. It then flows through two 5' X 10' gas scrubbers then sent to two Oxy check meters, which will serve as the point of royalty payment.

Oil and gas production are allocated back to each well based on well test. Wells will be tested according to Hearing Order R-14299. Refried Beans CC 15\_16 State Com 12H, 13H, 14H and Whomping Willow CC 15\_16 State Com 44H are in Range 2 of decline and are still being tested daily. OXY will move these wells off of individual separators and reduce testing frequency according to the future Conditions of Approval. All other wells have been on production for at least five years and are in Range 3 of decline. They will be tested at least once per month with a minimum cumulative test duration of 24 hours.

All water from the Whomping Willow Battery will be sent to the Cedar Canyon Water Disposal Distribution system.

#### Wells to remain at Cedar Canyon 16-1 Battery. Process flow does not change from PLC-580

WELL	ΑΡΙ	LOCATION					
POOL: CEDAR CANYON; DELAWARE (11540) - STATE LEASE NO. VA-0836-0001							
Cedar Canyon 16 State #11H	30-015-42062	C-16-T24S-R29E					
POOL: PIERCE CROSSING; BONE SPRING, EAST (96473) - STATE LEASE NO. VA-0836-0001							
Cedar Canyon 16 State #1H	30-015-39856	D-16-T24S-R29E					
Cedar Canyon 16 State #7H	30-015-41251	E-16-T24S-R29E					
Cedar Canyon 16 State #8H	30-015-41596	A-16-T24S-R29E					
Cedar Canyon 16 State #9H	30-015-42061	D-16-T24S-R29E					
Cedar Canyon 16 State #10H	30-015-42055	C-16-T24S-R29E					
POOL: PURPLE SAGE; WOLFCAMP (98220) - STATE LEASE NO. VA-0836-0001							
Cedar Canyon 16 State #33H	30-015-43844	A-16-T24S-R29E					
Cedar Canyon 16 State #34H	30-015-43843	A-16-T24S-R29E					

# **Additional Application Components:**

The flow of production is shown in detail on the enclosed facility diagram. Also enclosed is a map detailing the lease boundaries, well and battery locations.

The oil and gas meters will be calibrated on a regular basis per API and NMOCD specifications.

Pursuant to Statewide rule 19.15.12.10(C)(4)(g) OXY USA INC requests the option to include additional pools or leases within the defined parameters set forth in the Order for future additions.

Commingling this production is the most effective means of producing the reserves. OXY USA INC understands the requested approval will not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.