U.S. Patent No. 8,505,332
Claims 1-4, 6-7
Monell 20 Processing Plant
(Sweetwater County, Wyoming)

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
Claim 1	
[1.P] A method comprising:	
[1.1] receiving a hydrocarbon feed stream, wherein the hydrocarbon feed stream comprises carbon dioxide, natural gas liquid (NGL), heavy hydrocarbons, and acid gas,	As do most all Enhanced Oil Recovery ("EOR") processes, the Monell 20 EOR hydrocarbon feed stream includes carbon dioxide, natural gas liquid (NGL), heavy hydrocarbons, and acid gas. (Ex. 2056, Page 1, Material Streams (showing inlet gas (Stream No. 1) having Carbon Dioxide (93.62%), C3-C8 hydrocarbons (1.85%), and Hydrogen Sulfide acid gas (0.31%)).)
wherein the NGL comprises C_3-C_8 hydrocarbons, and	The NGL includes C3-C8 hydrocarbons (Ex. 2056, Page 1, Material Streams (showing inlet gas (Stream No. 1) having C3-C8 hydrocarbons); and
wherein the heavy hydrocarbons comprise C_{9+} hydrocarbons;	The heavy hydrocarbons include C9+ hydrocarbons. (Ex. 2071, Monell Plant Extended Hydrocarbon Gas and Liquid Analysis (2016-08-31)

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
	(showing Crude Blend having C9 (C9 Nonanes) and C10+ hydrocarbons (Decanes+))

[1.2] separating the hydrocarbon feed stream into a heavy hydrocarbon rich stream and a carbon dioxide recycle stream,	The Monell 20 EOR separates the "Hydrocarbon Feed Stream" into a "Heavy Hydrocarbon Rich Stream" and a "Carbon Dioxide Recycle Stream." This initial separation step is performed prior to the Stream No. 3 "Carbon Dioxide Recycle Stream" entering the NGL recovery gas processing plant, so is not shown on the Piping and Instrumentation Diagram ("P&IDs") and Process Flow Diagram ("PFDs") exhibits used for the following steps in the process. The Monell 20 EOR performs this initial separation step using a Three-Phase Separator that separates the "Hydrocarbon Feed Stream" into water, oil, and gaseous components. Water exits the bottom of the Three-Phase Separator, Oil ("Heavy Hydrocarbon Rich Stream" C9+ hydrocarbons) out the middle, and gas ("Carbon Dioxide Recycle Stream") out the top.
wherein the heavy hydrocarbon rich stream comprises the C_{9+} hydrocarbons, and	The "Heavy Hydrocarbon Rich Stream" includes C9+ hydrocarbons
wherein the carbon dioxide recycle stream comprises the carbon dioxide, the C_3-C_8 hydrocarbons, and the acid gas;	The "Carbon Dioxide Recycle Stream" includes Carbon Dioxide, C3-C8 hydrocarbons, and acid gas Carbon Dioxide Recycle Stream = Stream No. 3, "V-1 NGL Fractionator" Inlet (Ex. 2056, Page 1, Material Streams).

<table>
<tr><th>Claims 1-4, 6-7</th><th>Monell 20 Processing Plant (Sweetwater County, Wyoming)
Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram
(April 9. 2007 – Revised per PHA Review)
Ex. 2055, NGL Fractionation System, Process Flow Diagram,
(Nov. 11, 2024)</th></tr>
<tr><td></td><td>Stream No. 3 “V-1 NGL Fractionator” Inlet composition
(Ex. 2056, Page 1) includes:
<table><tr><td>carbon dioxide</td><td>Carbon Dioxide (mol%)</td><td>94.00%</td></tr><tr><td>C3-C8 hydrocarbons:</td><td></td><td></td></tr><tr><td>C3</td><td>Propane (mol%)</td><td>1.16%</td></tr><tr><td>C4</td><td>i-Butane (mol%)</td><td>0.15%</td></tr><tr><td></td><td>n-Butane (mol%)</td><td>0.31%</td></tr><tr><td>C5</td><td>i-Pentane (mol%)</td><td>0.07%</td></tr><tr><td></td><td>n-Pentane (mol%)</td><td>0.06%</td></tr><tr><td>C6</td><td>n-Hexane (mol%)</td><td>0.05%</td></tr><tr><td>C7</td><td>n-Heptane (mol%)</td><td>0.00%</td></tr><tr><td>C8</td><td>n-Octane (mol%)</td><td>0.06%</td></tr><tr><td>acid gas (H2S/CO2)</td><td>Hydrogen Sulfide (mol%)</td><td>0.31%</td></tr></table>which accounts for 96.17%. Other components are: N2 (0.08%), Methane (2.19%), and Ethane (1.56%), which accounts for 100.00%</td></tr>
<tr><td>[1.3] separating the carbon dioxide recycle stream into a sour NGL rich stream and a purified carbon dioxide recycle stream,</td><td>The Stream No. 3 “Carbon Dioxide Recycle Stream” flows into the V-1 NGL Fractionator where this [1.3] separating step is performed. (Ex. 2055, Page 1.)

The V-1 NGL Fractionator separates the Stream No. 3 “Carbon Dioxide</td></tr>
</table>

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Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram
(April 9. 2007 – Revised per PHA Review)
Ex. 2055, NGL Fractionation System, Process Flow Diagram,
(Nov. 11, 2024)</th></tr>
<tr><td>wherein the sour NGL rich stream comprises the C_3-C_8 hydrocarbons and the acid gas, and</td><td>Recycle Stream” into a bottoms “Sour NGL Rich Stream” (Stream No. 6) and an overhead “Purified Carbon Dioxide Recycle Stream” (Stream No. 4). (Ex. 2055, Page 1.)

Unnamed stream exits the bottom of the V-1 NGL Fractionator and flows to the E-3 Column Reboiler, exiting as the “Sour NGL Rich Stream” (Stream No. 6). (Ex. 2056, Page 1.)

Stream No. 6 “Sour NGL Rich Stream” composition
(Ex. 2056, Page 1) includes C3-C8 hydrocarbons and acid gas:

C3-C8 hydrocarbons:
C3 Propane (mol%) 27.91%
C4 i-Butane (mol%) 12.85%
n-Butane (mol%) 29.78%
C5 i-Pentane (mol%) 6.85%
n-Pentane (mol%) 5.87%
C6 n-Hexane (mol%) 4.89%
C7 n-Heptane (mol%) 0.00%
C8 n-Octane (mol%) 5.87%</td></tr>
</table>

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
wherein the purified carbon dioxide recycle stream comprises the carbon dioxide; and	acid gas (H2S/CO2): H2S Hydrogen Sulfide (mol%) 0.94% CO2 Carbon Dioxide (mol%) 5.00% which accounts for 99.96%. Other components are: Water (0.04%), which accounts for 100.00% Non-numbered stream exits the top of the V-1 NGL Fractionator as the overhead stream and enters the E-2 Overhead Condenser, exiting as a non-numbered stream, which enters the V-2 Reflux Accumulator, exiting as the cooled "Purified Carbon Dioxide Recycle Stream" (Stream No. 4), which flows to the E-1 Gas/Gas Heat Exchanger (Ex. 2055, Page 1.) Stream No. 4 cooled "Purified Carbon Dioxide Recycle Stream" composition (Ex. 2056, Page 1) includes carbon dioxide: CO2 Carbon Dioxide (mol%) 94.92% other components are: Methane (2.21 %), Ethane (1.58 %), and Propane (0.88 %), which accounts for 99.59%, and C4 (0.02 % & 0.01 %), N2 (0.08%), and H2S (0.30 %), to account for 100%.

[1.4] separating the sour NGL rich stream into a sweet NGL rich stream and an acid gas stream,	The Stream No. 6 "Sour NGL Rich Stream" flows through the AC-2 NGL Product Cooler, exiting as the Stream No. 7 cooled "Sour NGL Rich Stream," which flows through a throttling valve, exiting as the Stream No. 8 low pressure "Sour NGL Rich Stream." Stream No. 8 low pressure "Sour NGL Rich Stream" flows to and enters the Amine Sweetening Package, (Ex. 2055, Page 2). The Stream No. 8 low pressure "Sour NGL Rich Stream" is separated into a "Sweet NGL Rich Stream" (Stream No. 9) and an "Acid Gas Stream" (Stream No. 10) by the Monell Amine System. (Ex. 2055, Page 2.)
wherein the sweet NGL rich stream comprises the C_3-C_8 hydrocarbons, and	Stream No. 9 "Sweet NGL Rich Stream" composition (Ex. 2056, Page 2) includes C3-C8 hydrocarbons: C3-C8 hydrocarbons: C3 Propane (mol%) 29.68% C4 i-Butane (mol%) 13.66% n-Butane (mol%) 31.66% C5 i-Pentane (mol%) 7.28% n-Pentane (mol%) 6.24% C6 n-Hexane (mol%) 5.20% C7 n-Heptane (mol%) 0.00% C8 n-Octane (mol%) 6.24% which accounts for 99.96% other components are: Water (0.04%), to account for 100%.

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
wherein the acid gas stream comprises the acid gas,	Stream No. 10 "Acid Gas Stream" composition (Ex. 2056, Page 2) includes the acid gas CO2 and H2S: CO2 Carbon Dioxide (mol%) 84.20% H2S Hydrogen Sulfide (mol%) 15.80% which accounts for 100%.
[1.5] wherein the carbon dioxide is not removed from the hydrocarbon feed stream and is not removed from the carbon dioxide recycle stream prior to separating the carbon dioxide recycle stream into the sour NGL rich stream and the purified carbon dioxide recycle stream, and	(CO2 is not removed from the hydrocarbon feed stream and CO2 is not removed from the carbon dioxide recycle stream) prior to separating the carbon dioxide recycle stream into the sour NGL rich stream and the purified carbon dioxide recycle stream The only CO2 removal steps are the [1.3] separation of the carbon dioxide recycle stream into the sour NGL rich stream and the purified carbon dioxide recycle stream, and after that step [1.3] separation, removal of the CO2/H2S acid gas from the sour NGL rich stream.
[1.6] wherein the hydrocarbon feed stream, the carbon dioxide recycle stream, and the sour NGL rich stream are not subjected to	There are no cryogenic conditions in this process. The coldest temperature in the process is Stream No. 14 (-5.1°F), which is the refrigerant stream for the E-2 Overhead Condenser for the V-1 NGL Fractionator.

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
cryogenic conditions, membranes, and carbon dioxide recovery solvents between being received and being separated into the heavy hydrocarbon rich stream, the purified carbon dioxide recycle stream, the sweet NGL rich stream, and the acid gas stream.	There are no membranes in this process. There are no "carbon dioxide recovery solvents" in this process. The only solvents in the process are the dehydration solvents (TEG) in the dehydration step, and the amine solvents (DEA) in the sweetening step, neither of which is a solvent used for recovery of carbon dioxide. The dehydration solvents are used to remove water from the carbon dioxide recycle stream, not to recover carbon dioxide. The amine solvents are used in the sweetening step to remove acid gas (CO2/H2S) from the "Sour NGL Rich Stream," not to recover carbon dioxide.

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
Claim 2 [2.1] The method of claim 1, further comprising: compressing the carbon dioxide recycle stream prior to separating the carbon dioxide recycle stream;	The Stream No. 3 "Carbon Dioxide Recycle Stream," is compressed by Compressors C1/C2 1st Stage, then flows through the T-502/T-532 Glycol Dehydration, then through the E-1 Gas/Gas Heat Exchanger, to the V-1 NGL Fractionator for separating the "Carbon Dioxide Recycle Stream." (Ex. 2055, Page 1).

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
[2.2] dehydrating at least part of the carbon dioxide recycle stream using a dehydration solvent prior to separating the carbon dioxide recycle stream;	The Stream No. 1 "Carbon Dioxide Recycle Stream" is dehydrated using a dehydration solvent prior to separating the "Carbon Dioxide Recycle Stream." The Stream No. 1 "Carbon Dioxide Recycle Stream" is dehydrated using the T-502/T-532 Glycol Dehydration, exiting as the dehydrated "Carbon Dioxide Recycle Stream" (Stream No. 2). (Ex. 2055, Page 1.) Glycol is a dehydration solvent. Comparison of the stream composition for the Stream No. 1 that enters the T-502/T-532 Glycol Dehydration (0.41% water) with the Stream No. 2 that exits the T-502/T-532 Glycol Dehydration (0.00% water), confirms that the T-502/T-532 Glycol Dehydration dehydrates the Stream No. 1 "Carbon Dioxide Recycle Stream." (Ex. 2056, Page 1.) The Stream No. 2 dehydrated "Carbon Dioxide Recycle Stream" flows from the T-502/T-532 Glycol Dehydration to the E-1 Gas/Gas Heat Exchanger, exiting as the cooled "Carbon Dioxide Recycle Stream" (Stream No. 3), which then flows to the V-1 NGL Fractionator for separating. (Ex. 2055, Page 1.)

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
[2.3] combining a carbon dioxide makeup stream external to the method with the purified carbon dioxide recycle stream; and	As do most all Enhanced Oil Recovery ("EOR") processes, the Monell 20 EOR uses a "Carbon Dioxide Makeup Stream" external to the NGL recovery process, and combines that makeup stream with the Stream No. 5 "Purified Carbon Dioxide Recycle Stream."
[2.4] injecting the combined carbon dioxide makeup stream and the purified carbon dioxide recycle stream into a subterranean formation.	The Monell 20 EOR injects the combined "Carbon Dioxide Makeup Stream" and the "Purified Carbon Dioxide Recycle Stream" into the subterranean formation.

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
Claim 3 [3] The method of claim 1, further comprising cooling the carbon dioxide recycle stream with the purified carbon dioxide recycle stream.	The Stream No. 2 "Carbon Dioxide Recycle Stream" is cooled with the Stream No. 4 cooled "Purified Carbon Dioxide Recycle Stream" by the E-1 Gas/Gas Heat Exchanger. (Ex. 2055, Page 1.) The Stream No. 2 "Carbon Dioxide Recycle Stream" enters the E-1 Gas/Gas Heat Exchanger at 104.0 °F, and exits the E-1 Gas/Gas Heat Exchanger at 30.0 °F as the Stream No. 3 cooled "Carbon Dioxide Recycle Stream." (Ex. 2056, Page 1 (showing Stream No. 2 as 140.0 °F, and Stream No. 3 as 30.0 °F).) The Stream No. 4 cooled "Purified Carbon Dioxide Recycle Stream" enters the E-1 Gas/Gas Heat Exchanger at 4.6°F, cools the Stream No. 2 "Carbon Dioxide Recycle Stream," exiting as the Stream No. 5 "Purified Carbon Dioxide Recycle Stream" at 77.7 °F, then flowing to the C1/C2 2nd Stage for compression and re-injection into the subterranean formation. (Ex. 2056, Page 1 (showing Stream No. 4 as 4.6°F, and Stream No. 5 as 77.7 °F).)

Claims 1-4, 6-7	**Monell 20 Processing Plant (Sweetwater County, Wyoming)** Ex. 2054, NGL Recovery Plant, Piping and Instrumentation Diagram (April 9. 2007 – Revised per PHA Review) Ex. 2055, NGL Fractionation System, Process Flow Diagram, (Nov. 11, 2024)
Claim 4 [4] The method of claim 3, wherein the sweet NGL rich stream comprises no more than 1 molar percent methane, no more than 1 molar percent ethane, and no more than 1 molar percent acid gases.	The Stream No. 9 "Sweet NGL Rich Stream" composition for Methane, Ethane, and Acid Gases (H2S/CO2) is (Ex. 2056, Page 2): The Stream No. 9 "Sweet NGL Rich Stream" has much less than 1 molar percent Methane, Ethane, and Acid Gases. C1 Methane (mol%) 0.00% C2 Ethane (mol%) 0.00% Acid gases: H2S Hydrogen Sulfide (mol%) 0.00% CO2 Carbon Dioxide (mol%) 0.00%
Claim 6 [6.1] The method of claim 1, wherein separating the carbon dioxide recycle stream into the sour NGL rich stream and the purified carbon dioxide recycle stream comprises: refluxing part of the purified carbon dioxide recycle stream;	The V-1 NGL Fractionator that separates the Stream No. 3 "Carbon Dioxide Recycle Stream" into the Stream No. 6 "Sour NGL Rich Stream" and the Stream No. 4 "Purified Carbon Dioxide Recycle Stream" uses the E-2 Overhead Condenser and the V-2 Reflux Accumulator to reflux part of the overhead Stream No. 4, and uses the E-3 Column Reboiler to reboil part of the Stream No. 6 "Sour NGL Rich Stream." (Ex. 2055, Page 1.) The V-1 NGL Fractionator overhead Stream No. 4 enters the E-2 Overhead Condenser and exits as the partially condensed reflux stream that enters the

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	V-2 Reflux Accumulator. The reflux stream exits the bottom of V-2 Reflux Accumulator and is pressured up by the P-1 A/B Reflux Pumps and returned to the top of the V-1 NGL Fractionator. The Stream No. 4 cooled "Purified Carbon Dioxide Recycle Stream" exits the top of the V-2 Reflux Accumulator and flows to the E-1 Gas/Gas Heat Exchanger, exiting as the Stream No. 5 "Purified Carbon Dioxide Recycle Stream" for compression and re-injection into the subterranean formation. (Ex. 2055, Page 1.)
[6.2] reboiling part of the sour NGL rich stream; and	The V-1 NGL Fractionator bottoms stream enters the E-3 Column Reboiler. Boil-up Stream No. 5 exits the top of the E-3 Column Reboiler and is returned to the bottom of the V-1 NGL Fractionator. The Stream No. 6 "Sour NGL Rich Stream" exits the bottom of the E-3 Column Reboiler and flows through the AC-2 NGL Product Cooler for cooling. (Ex. 2055, Page 1.)
[6.3] cooling and throttling the sour NGL rich stream.	The Stream No. 6 "Sour NGL Rich Stream" is cooled by the AC-2 NGL Product Cooler and exits as Stream No. 7 cooled "Sour NGL Rich Stream." (Ex. 2055, Page 1. The Stream Table shows the temperature for Stream No. 6 as 200.1 °F, and Stream No. 7 as 120.0 °F, confirming the cooling done by the AC-2 NGL Product Cooler. (Ex. 2056, Page 1.) The Stream No. 7 cooled "Sour NGL Rich Stream" is throttled by the LCV-202 throttling valve downstream of the AC-2 NGL Product Cooler

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	(Ex. 2055, Page 1), which reduces the pressure of the stream so it can enter the Monell Amine System at the operating pressure of the Monell Amine System as low pressure "Sour NGL Rich Stream" (Stream No. 8) (Ex. 2055, Page 1). The Stream Table shows the pressure for Stream No. 7 as 185.3 psia, and Stream No. 8 as 5.3 psia, confirming the pressure drop ("throttling") done by the LCV-202 throttling valve. (Ex. 2056, Pages 1-2.)
Claim 7 [7] The method of claim 6, wherein the sour NGL rich stream comprises no more than 5 molar percent carbon dioxide, no more than 1 molar percent methane, and no more than 5 molar percent ethane, and	The Stream No. 6 "Sour NGL Rich Stream" composition for Carbon Dioxide, Methane, and Ethane is (Ex. 2056, Page 1): The Stream No. 6 "Sour NGL Rich Stream" has no more than 5 molar percent Carbon Dioxide, much less than 1 molar percent Methane, and much less than 5 molar percent Ethane. CO2 Carbon Dioxide (mol%) 5.00% C1 Methane (mol%) 0.00% C2 Ethane (mol%) 0.00%
wherein the sweet NGL rich stream is substantially free of carbon dioxide.	The Stream No. 9 "Sweet NGL Rich Stream" composition for Carbon Dioxide is (Ex. 2056, Page 2):

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	The Stream No. 9 "Sweet NGL Rich Stream" is substantially free of Carbon Dioxide. CO2 Carbon Dioxide (mol%) 0.00%

Streams:

Stream No. 1 “Carbon Dioxide Recycle Stream” is dehydrated using the T-502/T-532 Glycol Dehydration, exiting as the
dehydrated “Carbon Dioxide Recycle Stream” (Stream No. 2)

Stream No. 2 dehydrated “Carbon Dioxide Recycle Stream” flows from the T-502/T-532 Glycol Dehydration to the E-1 Gas/Gas Heat Exchanger, exiting as the
cooled “Carbon Dioxide Recycle Stream” (Stream No. 3), which then flows to the V-1 NGL Fractionator for separating

Stream No. 3 “Carbon Dioxide Recycle Stream” flows into the V-1 NGL Fractionator where the [1.3] separating step is performed.

The V-1 NGL Fractionator separates the Stream No. 3 “Carbon Dioxide Recycle Stream” into a
bottoms “Sour NGL Rich Stream” (Stream No. 6) and an
overhead “Purified Carbon Dioxide Recycle Stream” (Stream No. 4)

Non-numbered stream exits the top of the V-1 NGL Fractionator as the overhead stream and enters the E-2 Overhead Condenser, exiting as a non-numbered stream, which enters the V-2 Reflux Accumulator, exiting as the cooled “Purified Carbon Dioxide Recycle Stream” (Stream No. 4), which flows to the E-1 Gas/Gas Heat Exchanger

The reflux stream exits the bottom of V-2 Reflux Accumulator and is pressured up by the P-1 A/B Reflux Pumps and returned to the top of the V-1 NGL Fractionator.

Stream No. 4 cooled “Purified Carbon Dioxide Recycle Stream” enters the E-1 Gas/Gas Heat Exchanger at 4.6°F, cools the Stream No. 2 “Carbon Dioxide Recycle Stream,” exiting as the

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Stream No. 5 “Purified Carbon Dioxide Recycle Stream” at 77.7 °F, then flowing to the C1/C2 2nd Stage for compression and re-injection into the subterranean formation

Unnamed stream exits the bottom of the V-1 NGL Fractionator and flows to the E-3 Column Reboiler, exiting as the
“Sour NGL Rich Stream” (Stream No. 6)

The V-1 NGL Fractionator bottoms stream enters the E-3 Column Reboiler. Boil-up Stream No. 5 exits the top of the E-3 Column Reboiler and is returned to the bottom of the V-1 NGL Fractionator.

Stream No. 6 “Sour NGL Rich Stream” exits the bottom of the E-3 Column Reboiler and flows through the AC-2 NGL Product Cooler for cooling.

Stream No. 6 “Sour NGL Rich Stream” flows through the AC-2 NGL Product Cooler, exiting as the
Stream No. 7 cooled “Sour NGL Rich Stream,” which flows through a throttling valve, exiting as the
Stream No. 8 low pressure “Sour NGL Rich Stream,” which flows to and enters the Amine Sweetening Package

The Stream No. 8 low pressure “Sour NGL Rich Stream” is separated into a
“Sweet NGL Rich Stream” (Stream No. 9) and an
“Acid Gas Stream” (Stream No. 10)