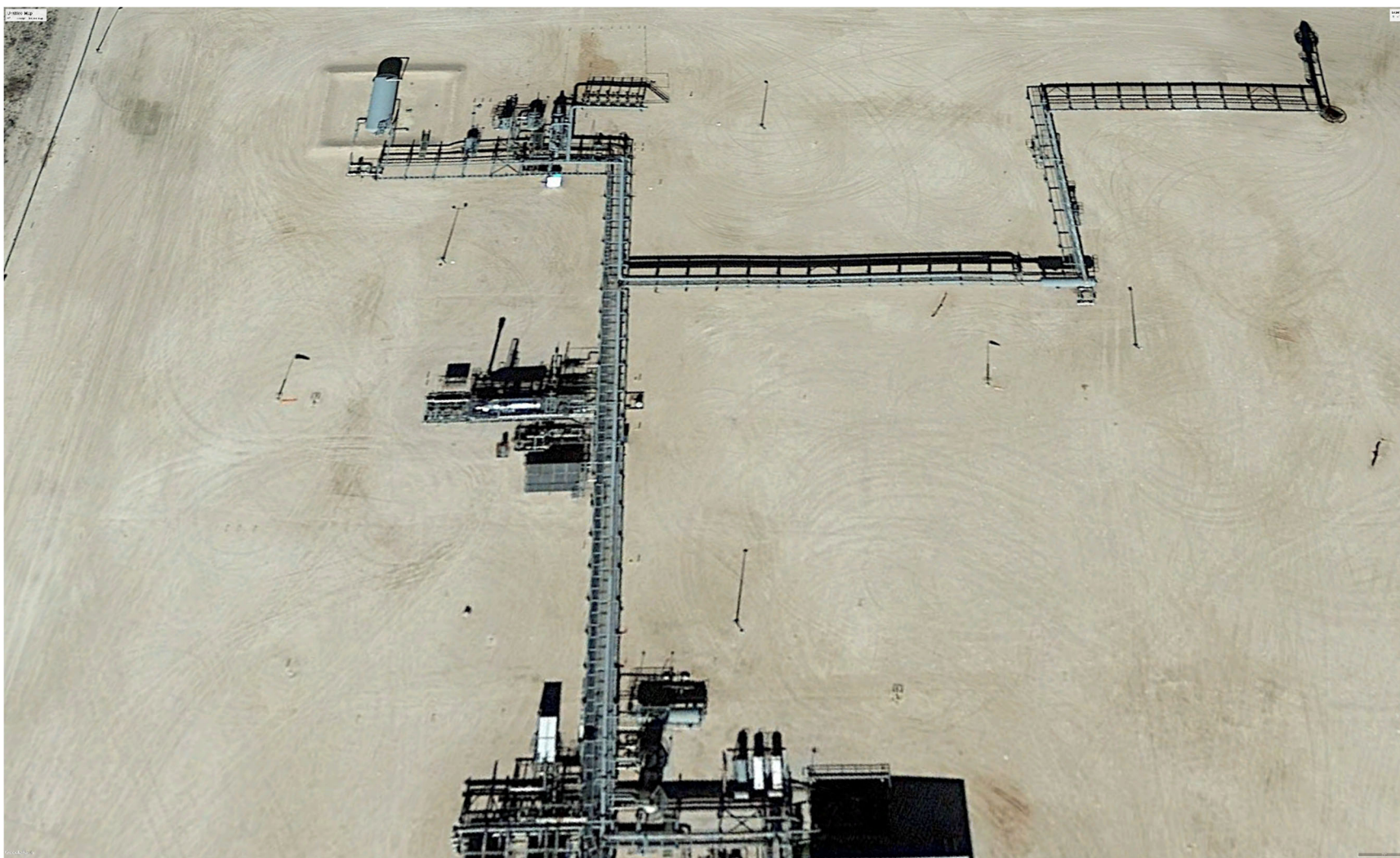


Comparison of Pilot Monell 20 CO2Flex® Plant to Chevron Mabee NGL Recovery Plant

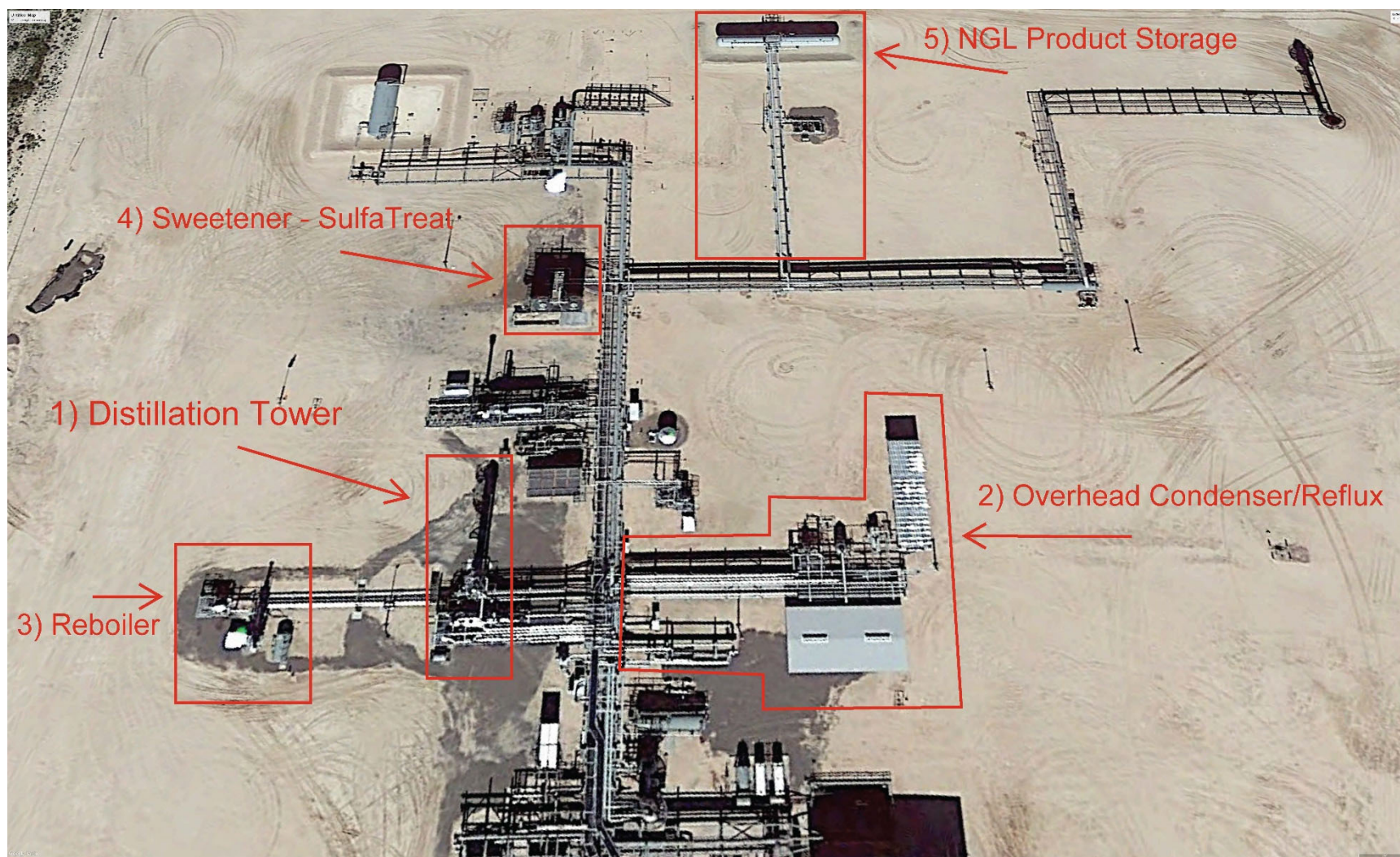
CO2Flex® Process Steps	Monell 20 CO2Flex® Plant Ex. 2055, Process Flow Diagrams Ex. 2056 HYSYS Chemical Process Simulation, Monell 20 (May 3, 2007 [regenerated November 11, 2024])	Chevron Mabee NGL Recovery Plant Ex. 2012, Hydrate Formation Paper; Ex. 2023, Air Permit; Exs. 2074-75, Google Earth Images
1) Distillation Tower Separation of NGLs from CO2 Recycle Stream	Distillation Tower	Distillation Tower
2) Overhead Condenser/Reflux Reflux – Condensing part of the overhead stream from the top of the Distillation Tower	Overhead Condenser/Reflux	Overhead Condenser/Reflux
3) Reboiler Reboiling the bottoms stream from the Distillation Tower	Reboiler	Reboiler
4) Sweetener Removing the H2S acid gas from the NGL Product	Amine Unit Sweetener	SulfaTreat Tower Sweetener
5) NGL Product to Storage/Sales	NGL Product to Sales	NGL Product Storage/Sales
NGL Recovery includes C3 Propane	Stream Composition Table shows significant amount of C3 Propane in the NGL Product	Stream Composition Table shows significant amount of C3 Propane in the NGL Product



EX2074, Google Earth Image – Chevron Mabee CO2 Recycle Facility (02/21/2013) (before addition of NGL Recovery Plant) https://earth.google.com/web/@32.21102082,-102.2292088,884.43526729a,580.57327589d,35y,-0.00009674h,26.71434883t,0r/data=ChYqEAgBEgoyMDEzLTAyLTlxGABCAggBOgMKATBCAaggASg0I_____ARAA



EX2075, Google Earth Image – Chevron Mabee CO2 Recycle Facility (10/4/2014) (after addition of NGL Recovery Plant) https://earth.google.com/web/@32.21102082,-102.2292088,884.43526729a,580.57327589d,35y,-0.00009674h,26.71434883t,0r/data=ChYqEAgBEgoyMDE0LTEwLTA0GABCAggBOgMKATBCAggASg0I_____ARAA



EX2075, Google Earth Image – Chevron Mabee CO2 Recycle Facility (10/4/2014) (after addition of NGL Recovery Plant) (Annotated to show equipment added for NGL Recovery Plant).

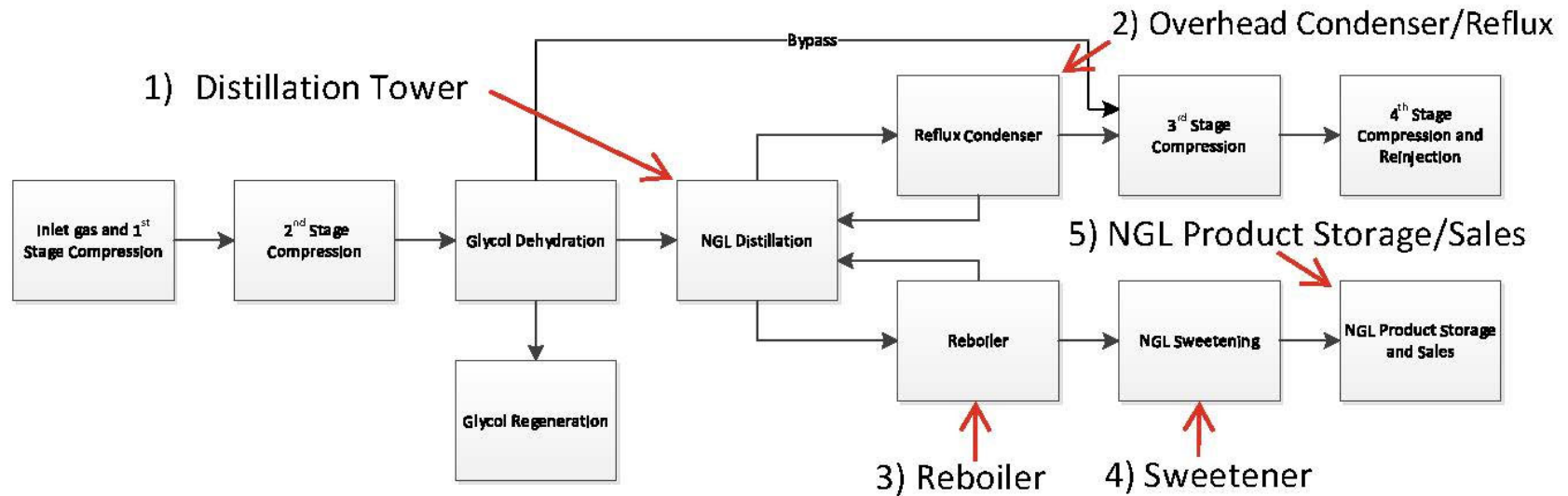


Figure 3: Mabee Gas Plant Block Flow Diagram

EX2012, Page 4, Hydrate Formation Paper, Figure 3 (Annotated to show equipment for adding NGL Recovery Plant to Chevron Mabee CO2 Recycle Facility).

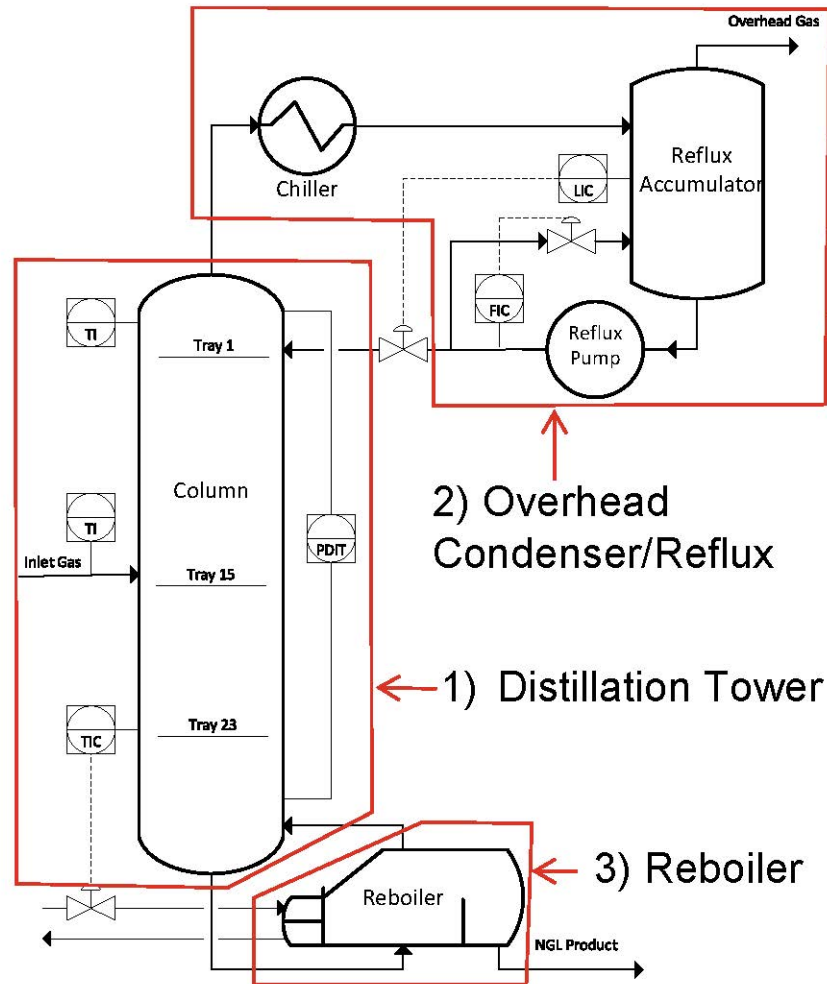
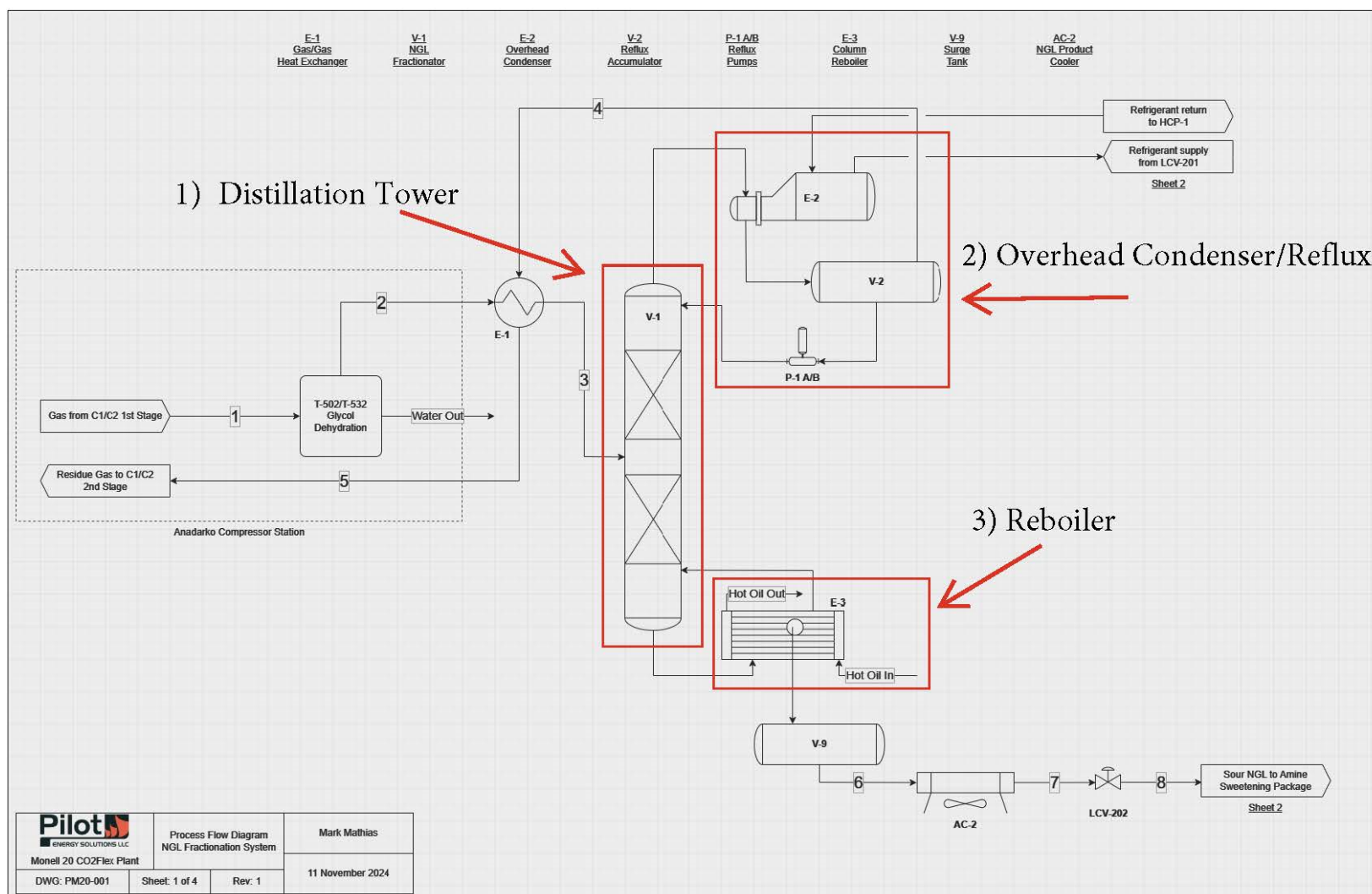
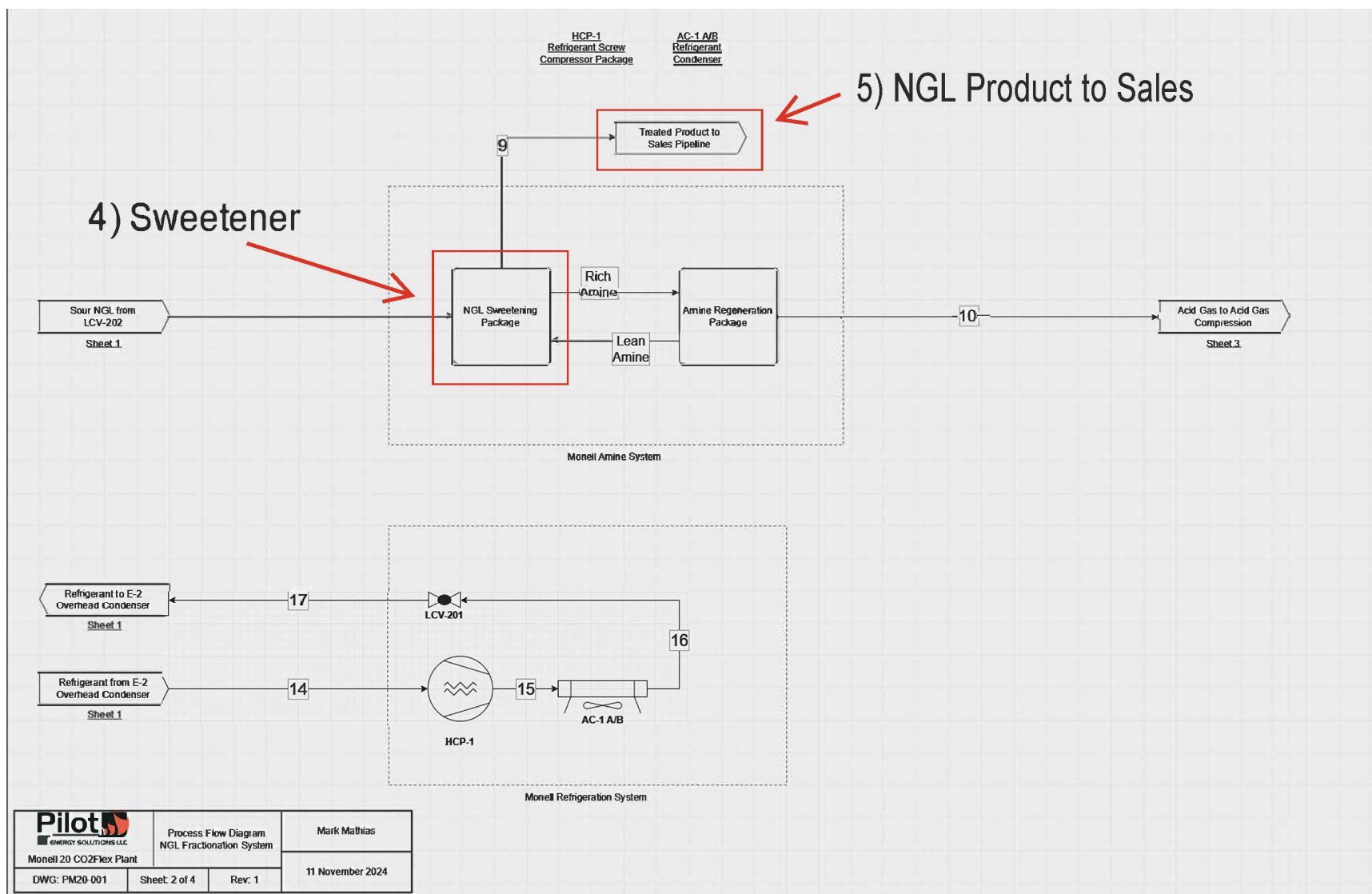


Figure 1: Process Flow Diagram of Distillation Column and Reflux

EX2012, Page 2, Hydrate Formation Paper, Figure 1 (Annotated to show equipment for adding NGL Recovery Plant to Chevron Mabee CO2 Recycle Facility).



EX2055, Page 1, Monell 20 CO2Flex[®] Plant, Process Flow Diagram, NGL Fractionation System (November 11, 2024) (Annotated to show CO2Flex[®] process equipment matching equipment added to Chevron Mabee CO2 Recycle Facility for adding NGL Recovery Plant).



EX2055, Page 2, Monell 20 CO2Flex[®] Plant, Process Flow Diagram, NGL Fractionation System (November 11, 2024) (Annotated to show CO2Flex[®] process equipment matching equipment added to Chevron Mabee CO2 Recycle Facility for adding NGL Recovery Plant).

Table 1: Model Validation of Plant Data

	Field	Model
Condenser Temp, F	5.7	5.7
Reboiler Temp, F	260	260
NGL Composition, mol %		
Propane	6.02	5.48
i-Butane	17.11	16.75
n-Butane	41.78	38.39
i-Pentane	14.57	14.20
n-Pentane	9.50	8.96
Hexane +	10.84	10.96

EX2012, Page 4, Hydrate Formation Paper, Table 1
Chevron Mabee NGL Recovery Plant
Stream Composition for NGL Product
(shows significant amount of C3 Propane in the NGL Product)

Composition, mol%	Treated Product
H2S	0.0000
Nitrogen	0.0000
CO2	0.0000
Methane	0.0000
Ethane	0.0000
Propane	0.2968
i-Butane	0.1366
n-Butane	0.3166
i-Pentane	0.0728
n-Pentane	0.0624
n-Hexane	0.0520
n-Octane	0.0624
H2O	0.0004

EX2056, HYSYS Chemical Process Simulation,
Monell 20 (May 3, 2007 [regenerated November 11,
2024])
Stream Composition for NGL Product
(shows significant amount of C3 Propane in the NGL Product)

	<u>Stream Name</u>		
	Feed	Overhead Product	Bottoms Product
Rate	110 MMSCF	107 MMSCF	2620 BPD
H ₂ S (ppmv)	500	514	—
	<u>Mole Percent</u>		
N ₂	3.4	3.5	—
CO ₂	83.9	86.3	—
C ₁	6.6	6.9	—
C ₂	1.4	1.4	—
C ₃	1.1	1.1	0.02
iC ₄	0.5	0.4	3.1
nC ₄	0.7	0.3	16.7
iC ₅	0.4	0.001	16.0
nC ₅	0.6	—	23.3
C ₆	0.6	—	24.4
C ₇₊	0.4	—	16.4

EX2016, Page 6, Pastor '666 Patent at 5:12-27, Table I, Stream Composition for NGL Product (“Bottoms Product”) (showing essentially no C3 Propane in the NGL Product, and essentially all of the C3 Propane from the Feed stream remaining in the CO2 recycle stream (“Overhead Product”).