

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SCOUT ENERGY MANAGEMENT, LLC, and
CHEVRON U.S.A. INC.,
Petitioners,

v.

PILOT INTELLECTUAL PROPERTY, LLC,
Patent Owner.

Case IPR2024-00385
Patent 8,505,332 B1

PATENT OWNER'S UPDATED EXHIBIT LIST

Pursuant to 37 C.F.R. § 42.63(e), Patent Owner submits the following current Exhibit List (updated to reflect the submission of Exhibits 2078-85).

EXHIBIT LIST

Exhibit	Description
2001	Declaration of Trevor Bors (May 13, 2024)
2002	<i>Curriculum Vitae</i> of Trevor Bors
2003	U.S. Patent No. 4,529,411 (“Goddin”)
2004	Table of Similarities (demonstrating similarities between Goddin ‘411 Patent Fig. 11 and Three-Column Ryan/Holmes Process)
2005	GPA Engineering Data Book (12th Ed. 2006, FPS version) (Pages 1-300 of 821) (replaced by Ex. 2025 (Part 1 of 3), Ex. 2026 (Part 2 of 3), and Ex. 2027 (Part 3 of 3))
2006	U.S. Patent No. 4,318,723 (“Cryogenic Distillative Separation of Acid Gases from Methane”)
2007	U.S. Patent No. 4,462,814 (“Distillative Separations of Gas Mixtures Containing Methane, Carbon Dioxide and Other Components”)
2008	Holmes AS, Ryan JM, Price BC, Styring RE. Process Improves Acid Gas Separation. <i>Hydrocarbon Processing</i> 1982; 61:131–136
2009	Hannah Kent-Webb PhD, Best Practices for Biological Sample Storage and Management. <i>Biocompare</i> . (Oct. 2022)
2010	Vortex Expansion Devices for High Temperature Cryogenics. Proceedings of The 26 th Intersociety Energy Convention Engineering Conference (1991)
2011	Penflex Engineering Bulletin #113 (including table from The American Society of Materials “ASM Specialty Handbook: Stainless Steels,” published in 1994)

2012	Hydrate Formation in Chevron Mabee Unit for NGL Recovery and CO ₂ Purification for EOR (Submitted to Gas Processors Association 2017)
2013	Canada Patent No. 294,939 (Prosecution File History – including Re-examination)
2014	Proposed Discovery Requests (including annotated Ex. 2012 Figure 3, specifically identifying four particular streams)
2015	Claim Chart_ '332 Patent Claims 1-4 6-7_ Secondary Considerations_ Copying
2016	United States Patent No. 4,753,666 (“Pastor”)
2017	Naomi Baker e-mail “Memo to file. conversation with Allen Hein, Chevron” (2012-02-12) (highlighted) (“He [Chevron’s Allen Hein] told me [Pilot’s Naomi Baker] that they were building a plant identical to their Rangeley (CO) plant”)
2018	Notice Letter from Pilot Energy Solutions to Chevron (August 15, 2013)
2019	Response Letter from Chevron to Pilot Energy Solutions (August 29, 2013) (attaching Pastor ‘666 Patent)
2020	<i>Pilot Energy Solutions, LLC et al. v. Chevron U.S.A. Inc. et al.</i> , Case No. 4:23-cv-02505-AHB, in the U.S. District Court for the Southern District of Texas, Houston Division, Order on Defendants’ Motion to Dismiss (Granting in Part, Denying in Part) (Doc. 41)
2021	<i>Pilot Energy Solutions, LLC et al. v. Chevron U.S.A. Inc. et al.</i> , Case No. 4:23-cv-02505-AHB, in the U.S. District Court for the Southern District of Texas, Houston Division, Agreed Joint Motion to Stay Pending Final Written Decision in Inter Partes Review Proceedings (Doc. 42)
2022	OSHA § 1910.119(d)(3)(i)(B) (requiring “Piping and instrument diagrams (P&ID’s)” for Process safety management of highly hazardous chemicals) (highlighted)

2023	Chevron Mabee Plant Air Permit Application – Texas Commission for Environmental Quality (“TCEQ”) (November 5, 2012)
2024	Transcript (Full) of Deposition of David A. Rockstraw (October 18, 2024)
2025	GPA Engineering Data Book (12th Ed. 2006, FPS version) (Sections 1-15) (Part 1 of 3) (replacing Ex. 2005)
2026	GPA Engineering Data Book (12th Ed. 2006, FPS version) (Sections 16-23) (Part 2 of 3) (replacing Ex. 2005)
2027	GPA Engineering Data Book (12th Ed. 2006, FPS version) (Sections 24-26) (Part 3 of 3) (replacing Ex. 2005)
2028	Declaration of Trevor Bors (November 22, 2024)
2029	Declaration of Eric Prim (November 22, 2024)
2030	Holloman Job No. 3228 New Construction – Description: Plant (Propane) Estimated Start Date: 8/13/01
2031	Exxon Means project development – sketches and notes
2032	Exxon Means project development – HYSYS process simulation (August 9, 2001)
2033	Exxon Means GCF Processing Plant Preliminary Piping and Instrumentation Diagram (“P&ID”) 50 MM Case (August 9, 2001) Drawing Nos. 3228-X-1, 3228-X-2
2034	Exxon Means project development – Equipment needed (August 16, 2001)
2035	Exxon Means - Material Balance of Gas Available for Processing (January 5, 2002)
2036	Exxon Means Optimization (November 17, 2002)

2037	Exxon Means Processing Proposal (December 17, 2002) (“The optimized results from the means processing proposal have yielded results that are a little unexpected. Optimization of the system has demonstrated that the best economics are found with an inlet flow of 50 MMSCFD with relatively low propane recovery. Small increases in the propane recovery rate result in major increases in the capital cost.”)
2038	Exxon Means GCF Operations Initial Proposal (January 25, 2003) (“If the operations of the GCF are coupled with the proposed NGL recovery plant, savings will be realized through the synergy of operating both facilities.”)
2039	Exxon Means Processing Proposal (January 30, 2003)
2040	Exxon Means Processing Proposal (March 27, 2003) (“The optimized results from the means processing proposal have yielded results that are a little unexpected. Optimization of the system has demonstrated that the best economics are found with an inlet flow of 50 MMSCFD with relatively low propane recovery. Small increases in the propane recovery rate result in major increases in the capital cost.”)
2041	Exxon Means San Andres Unit - Means Field - Hydrocarbon Gas Production Forecast (June 2003)
2042	Exxon Means NGL Recovery Proposal e-mail (July 16, 2003)
2043	Exxon Means Processing Information (July 21, 2003) (“The original plant was intended to be a <u>high recovery</u> 60MMSCFD plant that was estimated to cost \$12MM to \$15MM. Next the plant size was reduced to 25MMSCFD, also with <u>high propane recovery</u> . The 25MM option was estimated to cost around \$5MM. The current case is designed for 50MMSCFD with <u>low (25%) propane recovery</u> and is estimated to cost around \$7MM.”) (emphasis added)
2044	Exxon Means project development – Process Flow Diagram (“PFD”) Front Page (July 21, 2003) HYSYS process simulation (July 21, 2003)

2045	Exxon Means project development – All Equipment List (notes reducing Costs from \$7,461,160 to \$5,152,492)
2046	Exxon Means Optimization (November 17, 2002 Optimization Corrected for Presentation (August 30, 2003)
2047	U.S. Provisional Application No. 60/938,726, filed May 18, 2007 ('322 Patent Provisional Application)
2048	NGL Recovery in CO2 Floods, Options and Reasons, Eric Prim & Naomi Baker, Midland CO2 Conference (December 2011) (available at https://www.co2conference.net/wp-content/uploads/2012/12/1.4-EricPrim_NGL_Recovery_Options_in_CO2_Floods_2011-CO2FloodingConf.pdf)
2049	NGL Recovery in CO2 Floods, Options and Reasons, Eric Prim & Naomi Baker, 6th Annual Wyoming CO2 Conference, Casper, Wyoming (July 11-12, 2012) (mistakenly marked as EX2072)
2050	Rangely Weber Sand Unit Case History, Rory Clark – Reservoir Engineer, Chevron North America E&P, 6th Annual Wyoming CO2 Conference, Casper, Wyoming (July 12, 2012)
2051	New Process Recovers NGLs From CO2, Naomi Baker, The American Oil & Gas Reporter (February 2013)
2052	Summary of Charts Demonstrating that Pilot's CO2Flex [®] Plants Perform the Steps of the Challenged '332 Patent Claims 1-4, 6-7 ("coextensive" – "essentially the claimed invention")
2053	Monell 20 Chart Demonstrating One-to One Correspondence between Challenged '332 Patent Claims 1-4, 6-7 and Monell 20 CO2Flex [®] Plant as Shown in Process Flow Diagram
2054	Monell 20 NGL Recovery Plant, Piping and Instrumentation Diagrams (April 9, 2007 – Revised per PHA Review)

2055	Monell 20 CO2Flex [®] Plant, Process Flow Diagrams, NGL Fractionation System (November 11, 2024)
2056	HYSYS Chemical Process Simulation, Monell 20, (May 3, 2007 [regenerated November 11, 2024])
2057	Goldsmith - Golden Hammer Chart Demonstrating One-to One Correspondence between Challenged '332 Patent Claims 1-4, 6-7 and Goldsmith - Golden Hammer CO2Flex [®] Plant as Shown in Process Flow Diagram
2058	Goldsmith Processing Plant, Process Flow Diagram, Project No. 5100928 (March 13, 2012 – Final Design)
2059	Mobile Analytical Labs, Inc., Goldsmith Feed Gas Analysis Gas Extended Analysis (2012-10-12), and Gas Analysis Report (2018-01-11)
2060	Pantechs Laboratories, Goldsmith Feed Gas Analysis C6+ Gas-Vapor Fractional Analysis (2017-01-08)
2061	Weyburn Chart Demonstrating One-to One Correspondence between Challenged '332 Patent Claims 1-4, 6-7 and Weyburn 20 CO2Flex [®] Plant as Shown in Process Flow Diagram
2062	Weyburn NGL Recovery Plant, Process Flow Diagram and Material Balance (April 23, 2012 – Approved)
2063	Bureau Veritas Laboratories, Weyburn Plant Gas Analysis, Extended Gas Analysis (2020-12-15)
2064	Wellman Chart Demonstrating One-to One Correspondence between Challenged '332 Patent Claims 1-4, 6-7 and Wellman CO2Flex [®] Plant as Shown in Process Flow Diagram
2065	Wellman CO2Flex [®] Plant, Process Flow Diagram (February 19, 2015 – Final as Built)
2066	Wellman CO2Flex [®] Plant, Corrected Stream Table

2067	Pantechs Laboratories, Wellman Plant Gas Analysis, C6+ Gas-Vapor Fractional Analysis (2018-01-17)
2068	Pantechs Laboratories, Wellman Plant, Extended Crude Oil Fractional Analysis (2017-01-04)
2069	Monell 120 Chart Demonstrating One-to One Correspondence between Challenged '332 Patent Claims 1-4, 6-7 and Monell 20 CO2Flex® Plant as Shown in Process Flow Diagram
2070	Monell 120 CO2Flex® Plant, Process Flow Diagram, Project No. 14154 (July 31, 2015 – Issued Final)
2071	American Mobile Research, Inc., Monell Plant Extended Hydrocarbon Gas and Liquid Analysis (2016-08-31)
2072	Financials
2073	Maintenance Fee Record for U.S. Patent No. 4,753,666 (“Pastor”) (“Patent expired on 06/28/1992 due to non-payment of [first – 3.5Year] maintenance fee”)
2074	Google Earth Images – 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=ChYqEAgBEgoyMDEzLTAYLTIXGABCAggBOgMKATBCAggASg0I_____ARAA
2075	Google Earth Images – 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_____ARA A
2076	Comparison of Pilot Monell 20 CO2Flex® Plant to Chevron Mabee NGL Recovery Plant

2077	E-mail from Julie K. Huff, Chevron Facilities Engineer – CO2 Injection Projects, to three other Chevron personnel (Shintaku/Hein/Acero) and three Pilot personnel (Prim/Baker/Holloman), regarding plan for flights to visit Pilot’s Monell 20 CO2Flex® plant in Wyoming (November 11, 2008) (“[T]rip confirmed ... to visit the Anadarko/[Pilot] Monell CO2 recovery plant. Purpose of trip, understand the [Pilot] process for CO2 removed and Q&A with Anadarko Operations.”)
2078	Summary of Charts Demonstrating that Pilot’s CO2Flex® Plants Do Not Perform All of the Steps of the ‘332 Patent Claim 5
2079	Monell 20 Chart Demonstrating that Pilot’s Monell 20 CO2Flex® Plant Did Not Perform All of the Steps of the ‘332 Patent Claim 5
2080	Goldsmith - Golden Hammer Chart Demonstrating that Pilot’s Goldsmith - Golden Hammer CO2Flex® Plant Does Not Perform All of the Steps of the ‘332 Patent Claim 5
2081	Weyburn Chart Demonstrating that Pilot’s Weyburn 20 CO2Flex® Plant Does Not Perform All of the Steps of the ‘332 Patent Claim 5
2082	Wellman Chart Demonstrating that Pilot’s Wellman CO2Flex® Plant Does Not Perform All of the Steps of the ‘332 Patent Claim 5
2083	Monell 120 Chart Demonstrating that Pilot’s Monell 120 CO2Flex® Plant Does Not Perform All of the Steps of the ‘332 Patent Claim 5
2084	Claims 4 and 7 Analysis of the Three Examples in the ‘332 Patent
2085	Claim 5 Analysis of the Three Examples in the ‘332 Patent

Respectfully submitted this 21st day of March, 2025.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), I hereby certify that on March 21, 2025 the foregoing *Patent Owner's Updated Exhibit List* is being served electronically by agreement of the parties, by e-mail to the following counsel of record, along with the *Exhibits 2078-85*.

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