NM Produced Water Research Consortium - Testing Schedule - Oct 2023 Update

lCompany	Process	Land Discharge	Location and Dates	PW Quality	PW Volume/ Duration	Current Status
Hilcorp (1)	Membrane distillation treatment field-pilot	No - closed loop	San Juan Basin, near Bloomfield Winter 2023-24 Scale unit at Navajo Tech	40K TDS	20 bbls/day 1-2 months at a couple of sites	NMED and BLM permits approved, OCD permit submitted Nov 2023 John Byrom. johnbyrom@pescoin c.biz
Kanalis Resources (2)	Small green house pilot of RO treated PW for pine seedlings	No - closed loop w/in green house	San Juan Basin, near Ojo Encino Chapter House SW of Cuba NM Winter 2023-24	10K TDS, previous bench testing	20 bbls/day for 9 months	NMED, OCD, and BLM permits approved (startup underway) Nyle Khan Nk@kanalisgroup.com
Infinity Water (3)	Pre and thermal treatment and green house study	No - closed loop w/in green house	Permian Basin , Lea/Eddy County line Fall 2023	120K TDS	200-1000 bbls	(Startup underway) Ashley Kegley Whitehead Ashley@water.energy
Apatech /5- e Water (4)	Produced water treatment	At OCD permitted sites	Permian Basin Roswell/ Artesia Area Second half 2023	Abandoned wells plugging and closure	200-300 bbls/day	Coordinating with OCD on NOIs and permits Brian Ward b.ward@apateq.com
Bechtel (5)	Thermal treatment system	No - closed loop	Permian Basin	120 K TDS Permian Basin	500 bbls/day for 6 months	Startup underway at Midland Jeff Braune Jabraune@Bechtel.co m
Industry JIP (6,7,8)	Three pre- treatment, treatment, and post- treatment, Processes	No - closed loop	Permian Basin Fall 2023 (underway)	120K TDS	500 bbls/day	Near Midland TX Ops underway Whitney Dobson <u>whitney.dobson@ari</u> <u>swater.com</u>
Texas Pacific Water (9)	Physical/ membrane treatment with green house	No - closed loop w/in green house	Permian Basin Late summer	100K TDS	10-20 bbls/day	In Midland TX, ops underway Adrianne Lopez alopez@tpwresources .com
Circle Verde (10)	Mechanical Vapor Re- Compression	No - closed loop	Permian Basin Nov - Dec	100K TDS	200 bbl/day	Near Big Spring, testing early Dec Joseph Alexander Joseph.alexander@cir cleverde.com
Sun Vapor (11)	Solar distillation Small pilot- scale	No - closed loop	Permian Fall 2023 near Hobbs/ Lovington	100K TDS	20-50 bbls/day	NMED permit, need BLM and OCD permits Ryan Hall Ryan.hall@nglep.com
Colorado School of Mines (12)	Bioreactor/ membrane treatment	No - closed loop	Permian Fall 2023 near Hobbs/ Lovington	100K TDS	20-50 bbls/day	Ryan Hall Ryan.hall@nglep.com

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Intrepid (13)	Sustainable solution mining pre- treatment pilot-testing	No - closed loop w/in existing ponds	Permian Basin Near Carlsbad Fall/Winter 2023	170-250K TDS	50 bbls/day - focus on using 300,000 bbls per day at full- scale	No NOIs submitted yet
Sol Mem (14)	Solar-thermal membrane distillation	No - closed loop	BGNDRF and/or Permian Dec 2023	Brackish water, evap pond concentrate, and clean brine PW	10-15 bbls/day	NMED Permit. Ri Xin fxin@solmem.com
Trident (15)	Thermal process	No- closed loop	BGNDRF Dec 2023		20-100 bbls/day	Part of DOE solar desal program Jon Czas jon@tridentdesal .com