

M&G	
County: San Juan State: NM Sampled at: 0 Date: OCTOBER 8, 2024	Field: 0 Location: HAMMOND 91 Formation: N/A Depth: 0

Envision Products**Water Analysis**

Sum +	mg/L	meq/L
Potassium	0.0	0.00
Sodium	81.8	3.56
Calcium	256.0	12.77
Magnesium	121.9	10.03
Iron	0.2	0.01
Barium	3.0	0.04
Strontium	0.0	0.00
CATIONS	462.9	28.41

Analysis
Not Balanced

Sum -	mg/L	meq/L
Sulfate	1.0	0.02
Chloride	500.0	14.10
Carbonate	0.0	0.00
Bicarbonate	50.0	0.82
Hydroxide	0.0	0.00
	0.0	0.00
	0.0	0.00
ANIONS	551.0	14.94

System Parameters

Total Dissolved Solids @180C
 Sample Temperature, °F
 Sample pH, standard units
 Dissolved Oxygen
 Carbon Dioxide
 Total Sulfide, (TS)
 Sulfide Ion, (S)
 Dissolved Hydrogen Sulfide, (TS-S)

1,014 mg/L
 70 F
 9.84 Units
 0.0 ppm
 0.0 mg/L
 0.0 mg/L
 0 mg/L
 0 mg/L

Specific Gravity
 Resistivity, measured
 Ionic strength
 Sulfate Reducing Bacteria
 Aerobic Bacteria
 Manganese Level
 Chemical
 Amine

0.0000
 0 ohm/m³
 0.032
 na
 na
 1 mg/L
 N/A ppm
 N/A ppm

Scaling Tendency

CACO ₃ Stiff Davis			CASO ₄ SOLUBILITY				S		A	
Temp F	Index	A index	Temp F	Actual	Calculated		index		index	
32	1.80	28	50	0.02	20.23		-20.21		-482	
50	2.02	28	68	0.02	20.98		-20.95		-499	
68	2.22	29	86	0.02	21.70		-21.68		-517	
77	2.33	29	104	0.02	22.03		-22.01		-525	
86	2.43	29	122	0.02	22.00		-21.98		-524	
104	2.63	29	140	0.02	21.04		-21.02		-501	
122	2.83	29	158	0.02	20.05		-20.03		-477	
140	3.02	29	176	0.02	19.01		-18.99		-453	
158	3.21	29								
176	3.39	29								

BASO₄ SCALE POSSIBLE**NO****Water Analysis Pattern****NOTE: Stiff Davis Index**

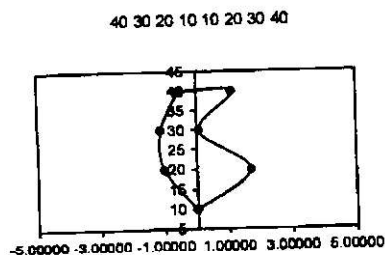
- indicates undersaturation. Scale formation negative.
- 0 indicates the water is at saturation point. Scale unlikely.
- + indicates supersaturation. A positive scaling condition exists

NOTE: Skillman Method Calcium Sulfate 'S' Index

- indicates undersaturation. Scale formation negative.
- 0 indicates the water is at saturation point. Scale unlikely.
- + indicates supersaturation. A positive scaling condition exists

NOTE: A Index; worst possible case. Assumes 100% precipitation.

- Units = pounds of scale produced / 1000 bbls. of water.
- A Index < 0 Scale formation negative.
- A Index > 0 Scale formation positive.



Approved: Desirae
 10/08/24

#

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 412680

CONDITIONS

Operator: M & G DRLG CO INC P.O. Box 5940 Farmington, NM 87499	OGRID: 141852
	Action Number: 412680
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	TDS 1014 well clear	1/31/2025