pH7X®

Oxygenated Non-Caustic Cleaner

Comparative Beer Line Cleaning Analysis



- pH7X® vs. BJ's Restaurant & Brewpub Past Caustic Protocol
- BJ's Restaurant & Brewpub - Culver City POC 2024
- Conducted with BJ's West Covina Head Brewer
- Resulted in pH7X® being approved by BJ's Senior VP of Brewing Operations and the Board of Directors for use in all 219 BJ's locations

SNP DISTRIBUTORS
Environmentally friendly solutions

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How to Read This Data

Methodology & timeline

ATP — faucets & rinse water

Measured in real time at the moment of sampling. "Before" = pre-clean; "After" = post-clean — same line, same day.

Dip slides — rinse water

Inoculated from those same before/after samples, then held at room temperature and read ~2 weeks later for growth.
Held at room temperature rather than in a controlled incubator, so dip-slide counts are directional indicators — not lab-controlled measurements.

Reading "Before" and "After"

Throughout this deck, both always mean pre- vs. post-clean on the same line — never two separate time points.

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Executive Takeaway

RESULT

pH7X® cleaned the lines

ATP and dip-slide results show large reductions after recirculation on multiple beer lines.

COMPARISON

Matched against caustic

pH7X® achieved clean ATP results with a simpler non-caustic recirculation approach.

POSITIONING

Safety + equipment story

The value is not just cleaning. It is reduced caustic exposure, reduced liability and gentler equipment maintenance.

Important data note

“Before” = sample data taken prior to cleaning at Day 0. “After” = sample data two weeks later / Day 24 per field note.
This deck keeps that language visible on all data slides so the timeline is not confusing.

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POC Design: Two Cleans + One Head-to-Head

Apr 2nd

First Clean

2% **pH7X®**
45-min recirculation
Deep Clean

Apr 17th

Second Clean

1% **pH7X®**
15-min recirculation

Apr 17th

Comparative Clean

pH7X® vs BJ's caustic
15-min recirculation

Tests done on Apr. 2nd and Apr. 17th: Each were measured with ATP swabs on faucets and rinse water, as well as dip slides on rinse water collected at Day 0 and read after two weeks / Day 24

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Methodology: First Clean

Protocol	**2% pH7X® · 45-min recirculation (deep clean)**
Dose	**0.84 lb / 380 g in 5 gallons**
Lines	**Committed Dbl IPA · Oasis Amber Ale · Enchantress Pilsner · Prickly Pear Lemonade**
Samples	**ATP before/after on faucets + rinse water; dip slides before/after on rinse water**

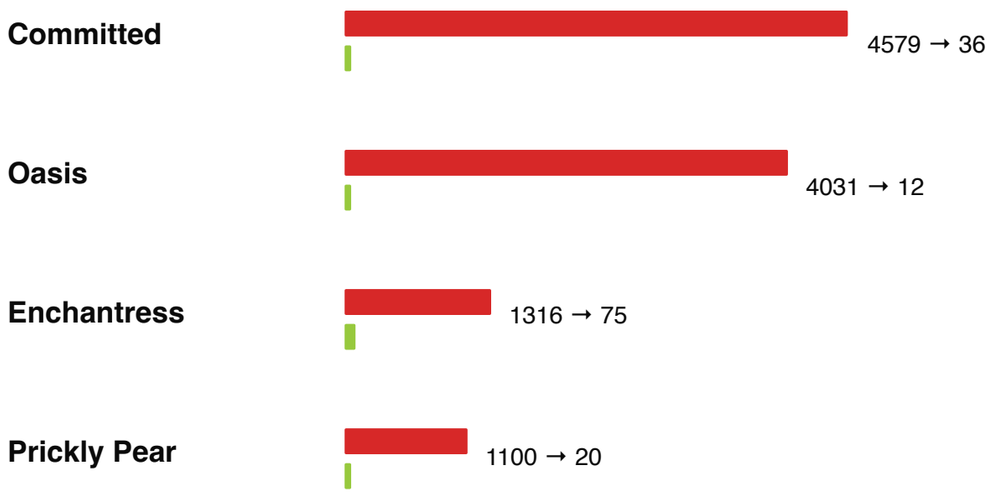


ATP Results: First Clean

Line	Timing	Faucet ATP	Rinse Water ATP
Committed Dbl IPA	Before	4,579	6
	After	36*	3
Oasis Amber Ale	Before	4,031	26
	After	12*	1
Enchantress Pilsner	Before	1,316	12
	After	75*	4
Prickly Pear Lemonade	Before	1,100	543
	After	20*	6

*Faucets were not scrubbed prior to swabbing to show efficacy of pH7X® without scrubbing

Faucet ATP reductions



Red = test "Before" | Green = test "After"

Dip Slide Results: First Clean

Line	Timing	Aerobic Microbes TVC	Yeasts & Molds
Committed Dbl IPA	Before	MODERATE · 10,000	None Visible
	After	LIGHT · 1,000	None Visible
Oasis Amber Ale	Before	VERY LIGHT · 100	HEAVY · Mucor spp., Candida
	After	VERY LIGHT · 100	None Visible
Enchantress Pilsner	Before	LIGHT · 1,000	None Visible
	After	LIGHT · 1,000	None Visible
Prickly Pear Lemonade	Before	MODERATE · 10,000	HEAVY · Penicillium notatum
	After	LIGHT · 1,000	None Visible

TVC = approximate colony count per mL. No incubation; study held at room temp.

Photo Evidence: First Clean



BEFORE pH7X® Deep Clean — Aerobic Microbes / TVC

Rinse-water samples were collected from each beer line after beer was flushed with water, before the 45-minute 2% pH7X® deep cleaning cycle.

*Photo shows Day 24 / two-week dip-slide readout.



AFTER pH7X® Deep Clean — Aerobic Microbes / TVC

Rinse-water samples were collected from the same beer lines after the 45-minute 2% pH7X® deep cleaning cycle.

*Photo shows Day 24 / two-week dip-slide readout.



BEFORE pH7X® Deep Clean — Yeast & Mold

Rinse-water samples were collected from each beer line after beer was flushed with water, before the 45-minute 2% pH7X® cleaning cycle.

*Photo shows Day 24 / two-week dip-slide readout.



AFTER pH7X® Deep Clean — Yeast & Mold

Rinse-water samples were collected from the same beer lines after the 45-minute 2% pH7X® cleaning cycle.

*Photo shows Day 24 / two-week dip-slide readout.

Photo Evidence: First Clean



BEFORE pH7X® Deep Clean Committed Double IPA FOB

FOB prior to a 45-minute 2% pH7X® deep cleaning cycle. Only water is in the FOB and line.



AFTER pH7X® Deep Clean Committed Double IPA FOB

FOB after a 45-minute 2% pH7X® deep cleaning cycle. Only water is in the FOB and line.



BEFORE pH7X® Deep Clean Oasis Amber Ale FOB

FOB prior to a 45-minute 2% pH7X® deep cleaning cycle. Only water is in the FOB and line.



AFTER pH7X® Deep Clean Oasis Amber Ale FOB

FOB after a 45-minute 2% pH7X® deep cleaning cycle. Only water is in the FOB and line.

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Methodology: Second Clean

Protocol	**1% pH7X® · 15-min recirculation**
Dose	0.42 lb / 190 g in 5 gallons
Lines	Committed Dbl IPA · Oasis Amber Ale · Enchantress Pilsner · Prickly Pear Lemonade
Samples	ATP before/after on faucets + rinse water; dip slides before/after on rinse water

Notable context: Committed and Oasis “Before” faucet ATP values were far lower than the first clean’s “Before” faucet ATP values, showing cleaner baseline conditions after prior pH7X® use.



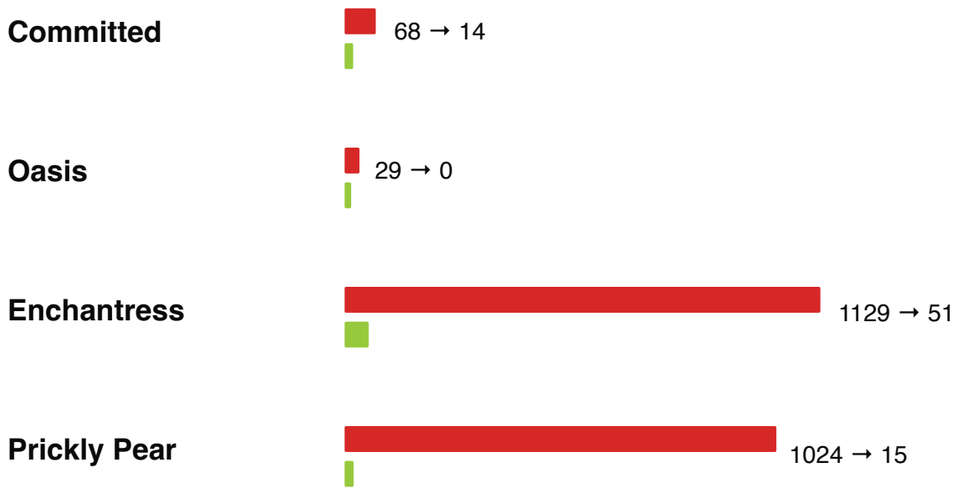
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ATP Results: Second Clean

Line	Timing	Faucet ATP	Rinse Water ATP
Committed Dbl IPA	Before	68	2
	After	14*	0
Oasis Amber Ale	Before	29	2
	After	0*	0
Enchantress Pilsner	Before	1,129	2
	After	51*	1
Prickly Pear Lemonade	Before	1,024	155
	After	15*	4

*Faucets were not scrubbed prior to swabbing to show efficacy of pH7X® without scrubbing

Faucet ATP reductions



Red = test "Before" | Green = test "After"

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Dip Slide Results: Second Clean

Line	Timing	Aerobic Microbes TVC	Yeasts & Molds
Committed Dbl IPA	Before	MODERATE · 10,000	None Visible
	After	LIGHT · 1,000	None Visible
Oasis Amber Ale	Before	VERY LIGHT · 100	HEAVY · Mucor spp., Candida
	After	VERY LIGHT · 100	None Visible
Enchantress Pilsner	Before	LIGHT · 1,000	None Visible
	After	LIGHT · 1,000	None Visible
Prickly Pear Lemonade	Before	MODERATE · 10,000	HEAVY · Penicillium notatum
	After	LIGHT · 1,000	None Visible

TVC = approximate colony count per mL. No incubation; study held at room temp.

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Comparative Clean: ATP Results

pH7X® 15-min 1% recirculation

Line	Timing	Faucet ATP	Rinse Water ATP
Piranha Pale Ale	Before	752	3
	After	1	0
Jeremiah Red Ale	Before	45	5
	After	0	1

BJ's 15-min 2% caustic recirculation

Line	Timing	Faucet ATP	Rinse Water ATP
Harvest Hefeweizen	Before	6,703	9
	After	2	0
Brewhouse Blonde	Before	177	6
	After	0	0

Both approaches produced very low ATP after cleaning. pH7X® does it while avoiding caustic handling.

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Comparative Clean: Dip Slide Results

pH7X® 15-min 1% recirculation

Line	Timing	Aerobic Microbes TVC	Yeasts & Molds
Piranha Pale Ale	Before	LIGHT · 1,000	LIGHT · Mucor spp., Candida spp.
	After	None Visible	None Visible
Jeremiah Red Ale	Before	LIGHT · 1,000	MEDIUM · Mucor spp., Candida spp.
	After	None Visible	LIGHT · Mucor spp., Candida spp.

BJ's 15-min 2% caustic recirculation

Line	Timing	Aerobic Microbes TVC	Yeasts & Molds
Harvest Hefeweizen	Before	HEAVY · 100,000	HEAVY · Aspergillus flavus
	After	LIGHT · 1,000	LIGHT · Aspergillus flavus
Brewhouse Blonde	Before	MODERATE · 10,000	HEAVY · Aspergillus flavus
	After	None Visible	MEDIUM · Aspergillus flavus

TVC = approximate colony count per mL. No incubation; study held at room temp.

Photo Evidence: Comparative Dip Slides

BJ's 15-min 2% caustic recirculation



PRE-Clean Rinse Water
After 2 Weeks

Aerobic Microbes TVC



POST-Clean Rinse Water
After 2 Weeks



PRE-Clean Rinse Water
After 2 Weeks

Yeasts & Molds



POST-Clean Rinse Water
After 2 Weeks

pH7X® 15-min 1% pH7X® recirculation



PRE-Clean Rinse Water
After 2 Weeks

Aerobic Microbes TVC



POST-Clean Rinse Water
After 2 Weeks



PRE-Clean Rinse Water
After 2 Weeks

Yeasts & Molds



POST-Clean Rinse Water
After 2 Weeks

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Why This Matters

We cleaned the lines...and we cleaned them without caustic.

SAFER FOR PEOPLE

Less caustic exposure

Cleaner handling profile for employees and less chance of a dangerous caustic mistake.

EASIER ON EQUIPMENT

Gentler on equipment

Non-caustic positioning supports longer line, hose, gasket, FOB and CIP equipment life.

BETTER STORY

Cleaner wastewater angle

A near neutral, non-caustic cleaner creates a stronger water stewardship and risk-reduction narrative.