

How to Incorporate Your PT's into Your QC Program

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Covered Topics

1. Laboratory Proficiency Testing (PT) requirements
2. PT 101 – The Basics
3. Acceptance Criteria – Where do they come from?
4. How to expand use of your PTs and Quality Program
5. How to expand your Quality Program

Laboratory PT Requirements

- Maintain acceptable performance for the last **2 out of 3** PTs performed.
- PTs must be purchased from a TNI accredited PT provider
- PTs must be performed for each field of certification

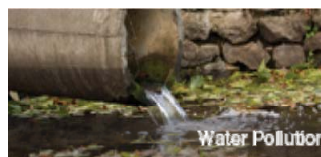
Fields of Proficiency Testing (FoPT)



Solid Waste (SOIL)



Drinking Water (Water Supply)



Waste Water (Water Pollution)



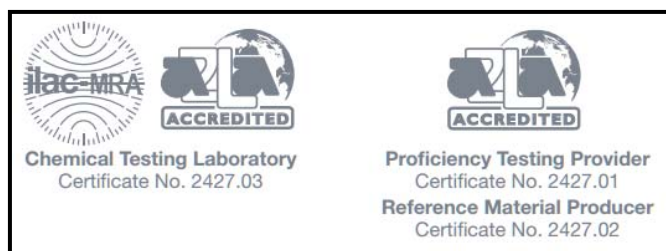
WET (Whole Effluent Toxicity)

PT Study Basics



TNI Compliant Chemistry/Microbiology PT Study

- 45 day study duration
- Acceptance limits generated according to TNI FoPT Tables
- PT reports are prepared for laboratories and submitted to Division of Consolidated Laboratory Services by the PT Provider
- PT Providers submit study summary to Proficiency Testing Provider Accreditor for continued evaluation



Phenova's Accrediting Body: A2LA

A2LA website: [Click Here](#)



PT Study Basics

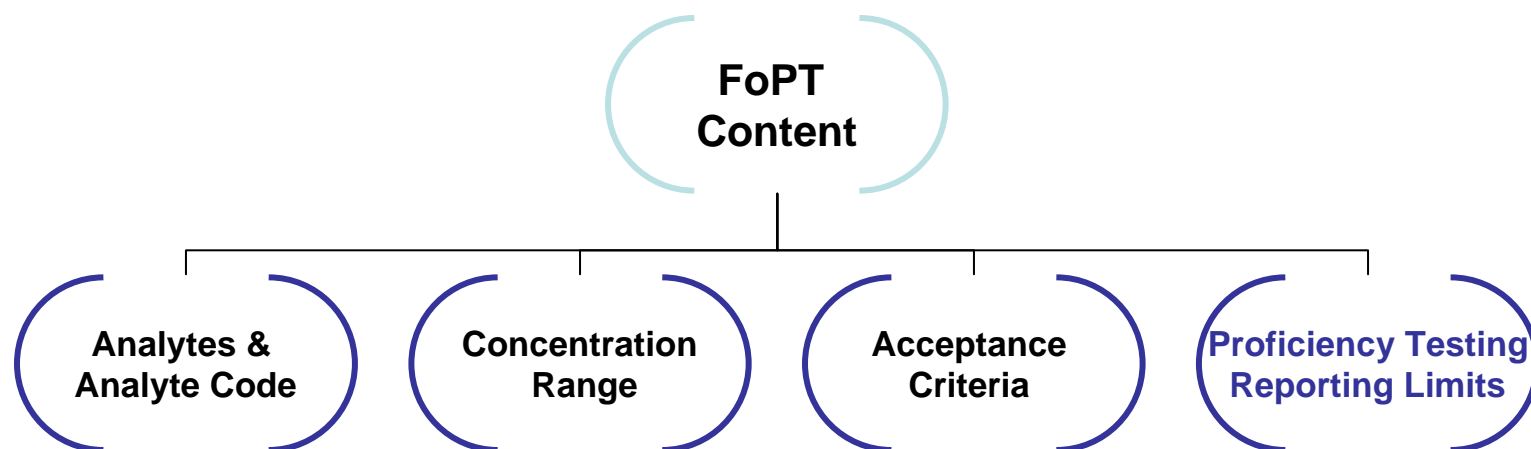
Chemistry/Microbiology PT Study

- Performed every 6 months
- Water Pollution (WP) PTs can be reported in lieu of DMR-QA
 - PT provider designate which WPs studies can apply
- DMR-QA
 - Composed of Chemistry, Microbiology and WET PTs
 - **NOT** a TNI compliant study
 - Regulated by the EPA
 - Performed once a year
 - 45+ day study duration
 - Make-Up PTs not required for “Not Acceptable” grading



PT Study Basics

Field of Proficiently Testing (FoPT) Tables



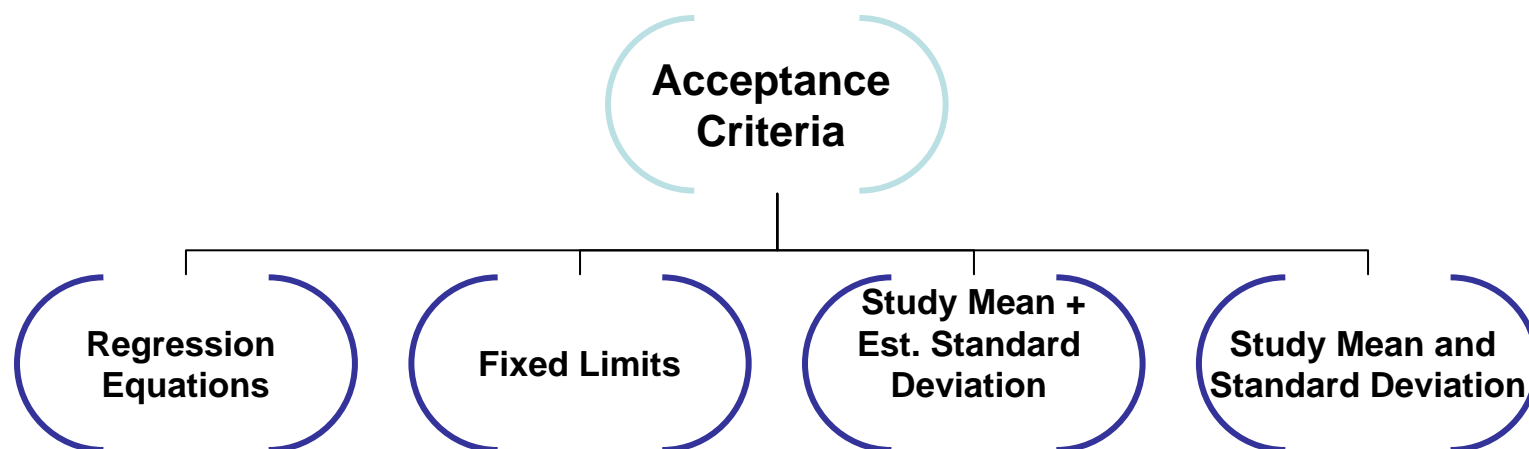
PT Reporting Limits: The lowest acceptable limit calculated from the lowest concentration



Visit TNI FoPT Webpage: [Click Here](#)

PT Acceptance Criteria

PT Providers determine Acceptance Criteria w/ FoPT Tables



Acceptance Criteria Are Always Reported in 3 Significant Figures



Visit TNI FoPT Webpage: [Click Here](#)

Using PTs for Quality Control

Using PTs for Quality Control

PTs Are The Most
Expensive Standard

Because...

You Pay For The Standard

You Pay For The Analysis

Why Not Get **More** From Your PT Standard?

**Evaluate and Improve Your Labs
Performance with its PT Data!!!**

Using PTs for Quality Control

Benefits for Using PTs for QC

5

More analytes per standard than your LCS

Wider concentration ranges than your LCS

Impartial 3rd party generation of a standard

Analytically verified and homogeneous to tighter tolerances

Allows the ability to compare yourself to peers

Using PTs for Quality Control

Ways You Can Use Your PTs

5

Spot Analytical Trends

See *when* issues happen, not just where

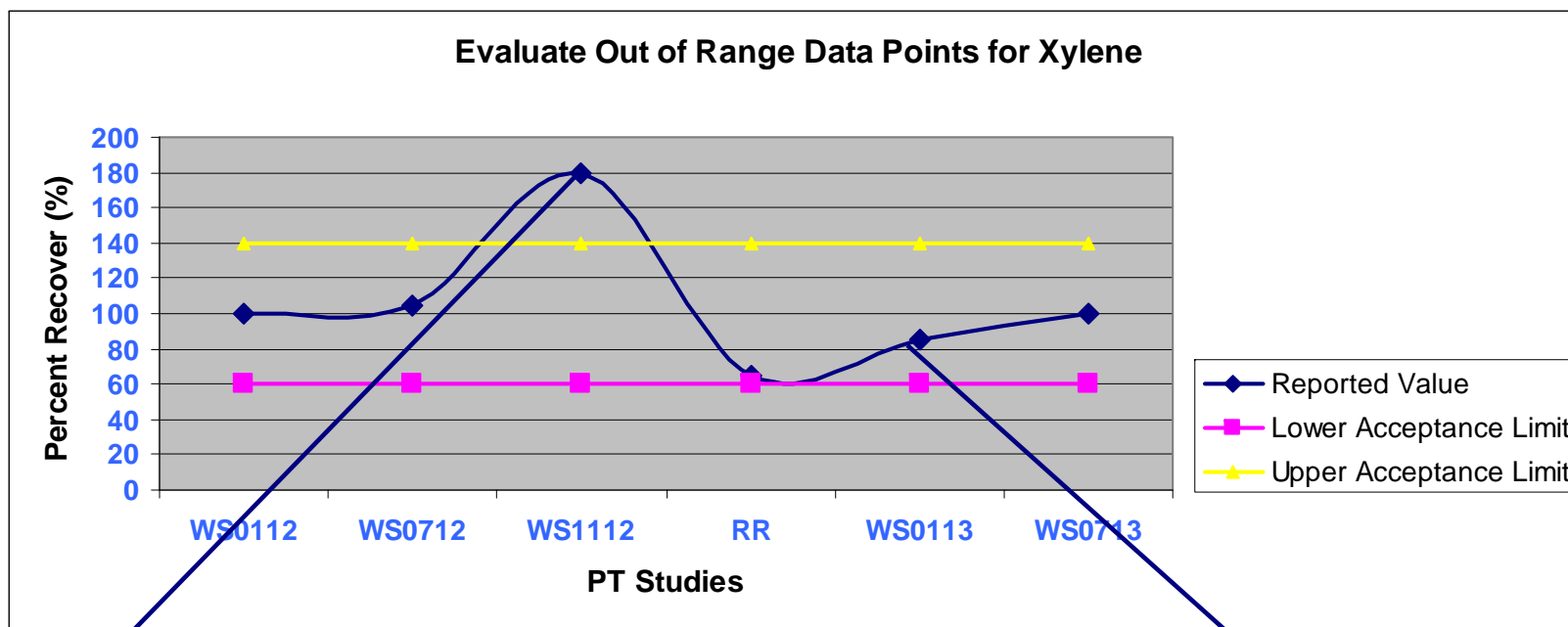
Test new methods/instruments & perform DOCs

Compares across laboratory analyses

Monitor laboratory performance & gauge corrective measures

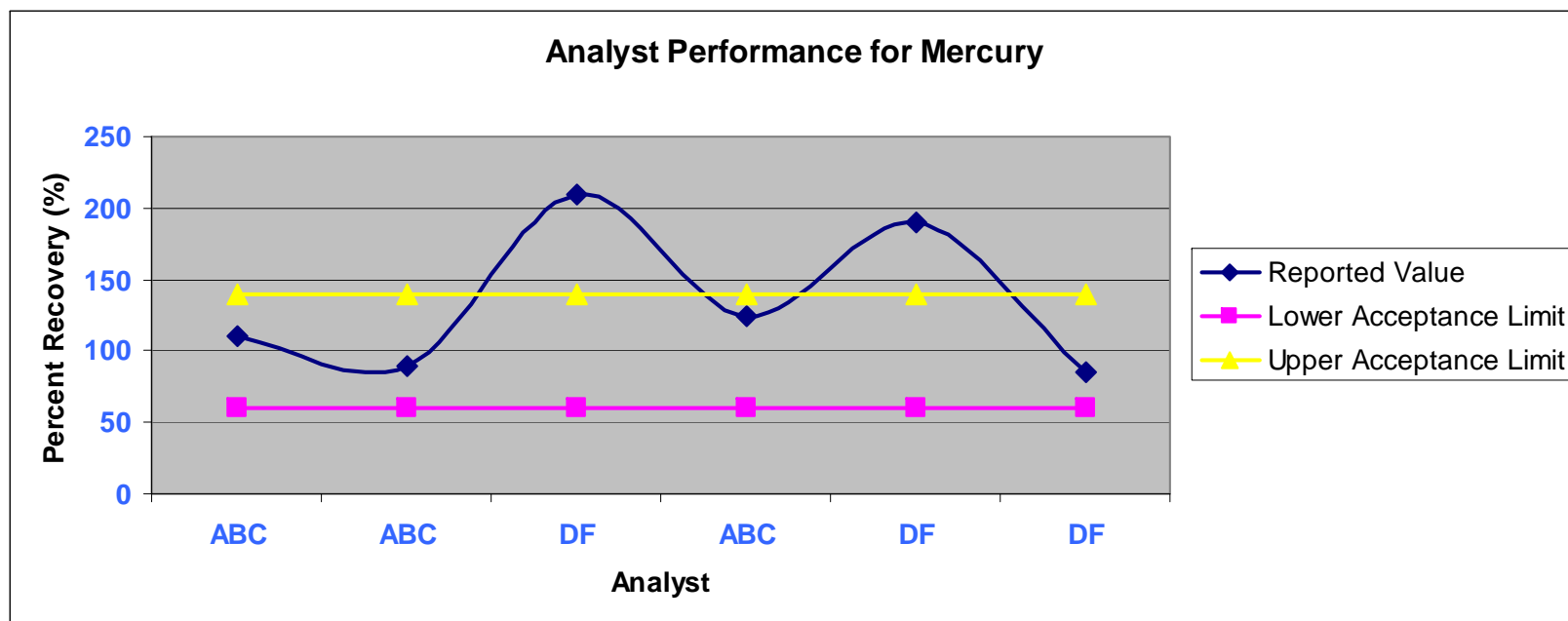
Case Studies

Case Study1: “Not Acceptable”



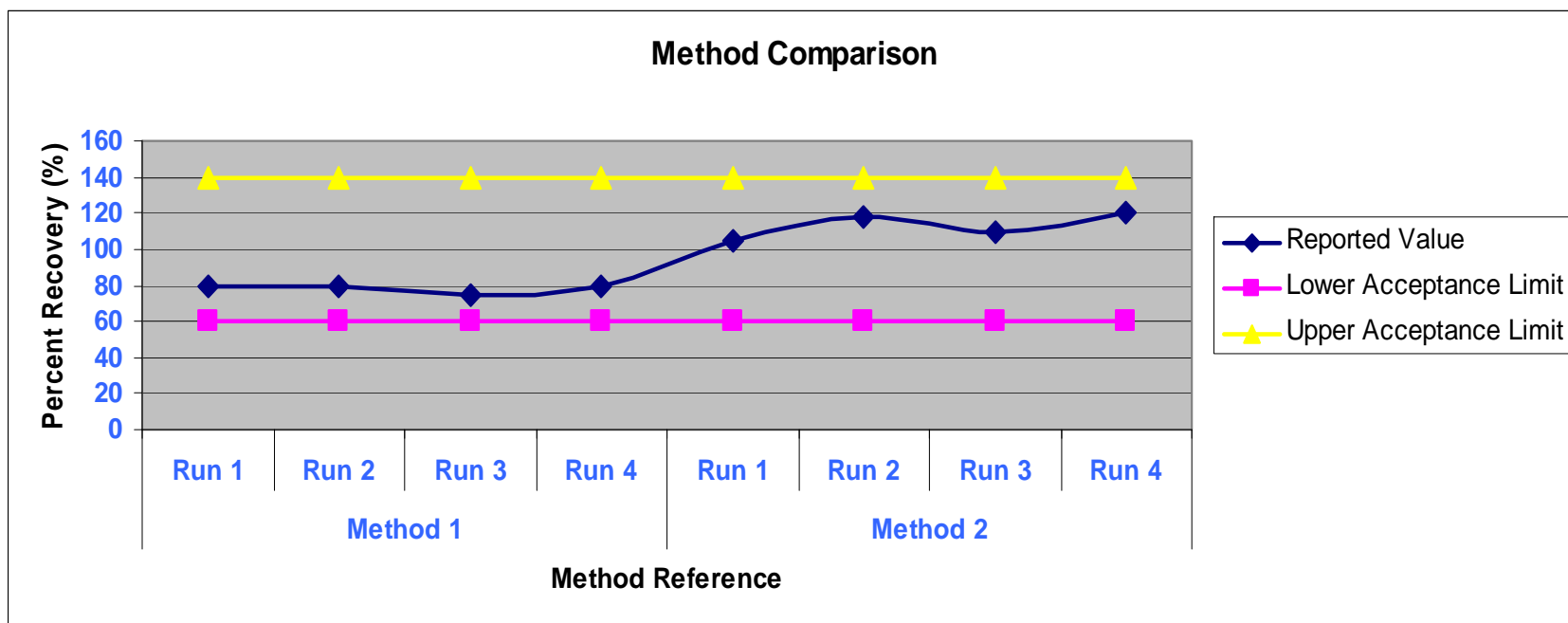
After a “Not Acceptable” evaluation check that your corrective actions are not just a one time fix.

Case Study 2: Analyst Performance



- Look at your training efforts
- Show your analyst's progress
- Evaluate analysts with PTs and QCs for DOCs

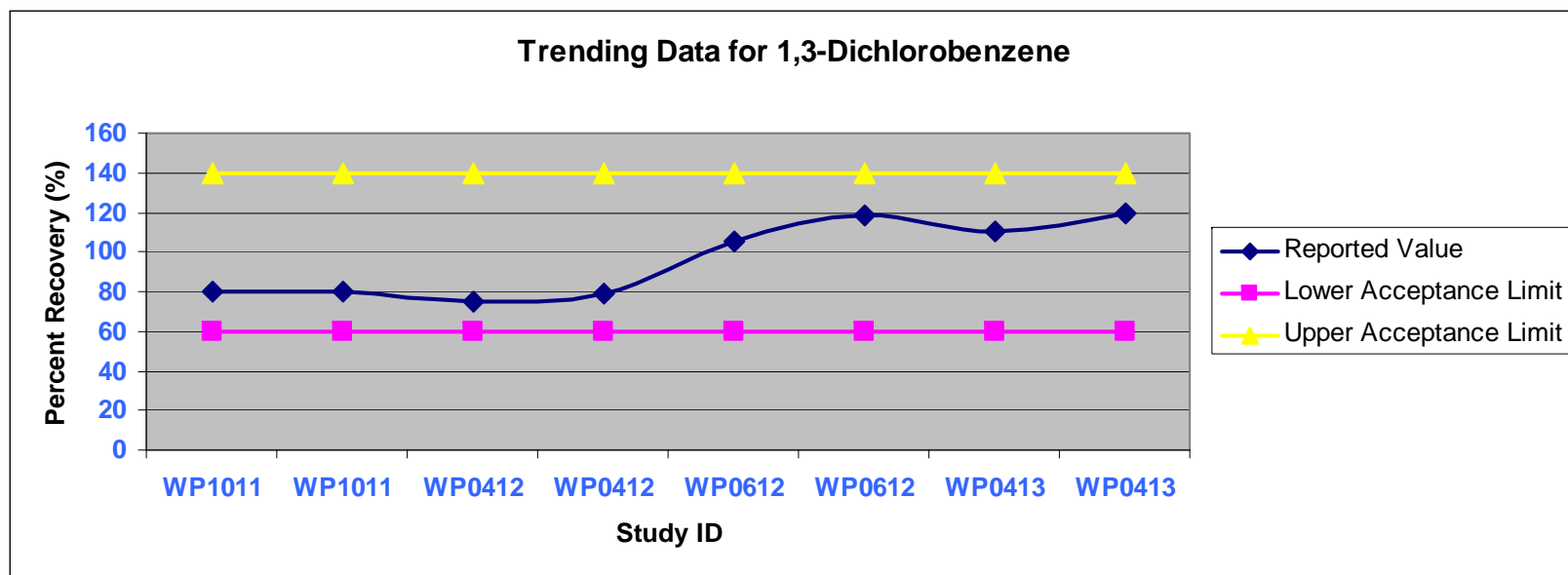
Case Study 3: Method Comparison



Performance Track Your Methods

- Compare different methods across your laboratory
- Do you use the same calibration material for multiple methods
- Is one method failing for an analyte but passing with another?

Case Study 4: Trending Data



The Best Corrective Action is The One Avoided

- Trend your data to avoid failing a PT before it happens
- Take preventative action **before** corrective action

Case Study 5: Accreditation Tracking

Study Number	Analyte Name	Analysis Date	Method Description	Units	Assigned Value	Reported Values	Acceptance Limits		Evaluation
WS0111	Bromochloroacetic Acid	3/30/2012	EPA 552.2	µg/L	13.5	15.3	8.07	18.8	Acceptable
WS0711	Bromochloroacetic Acid	4/19/2012	EPA 552.2	µg/L	22.3	20.3	13.4	31.2	Acceptable
WS0112	Bromochloroacetic Acid	2/21/2012	EPA 552.2	µg/L	8.19	17.1	4.92	11.5	Not Acceptable
WS0712	Bromochloroacetic Acid	1/31/2013	EPA 552.2	µg/L	7.29	8.3	4.37	10.2	Acceptable
WS0113	Bromochloroacetic Acid	8/1/2012	EPA 552.2	µg/L	11	20.8	6.62	15.5	Not Acceptable
WS0713	Bromochloroacetic Acid	7/31/2013	EPA 552.2	µg/L	28.6	25.9	17.2	40.1	Acceptable

- Track your TNI 2 out of 3 acceptable
- Make sure that your analysis dates are within the 5–7 month window
- Non-TNI state accreditation by method
- Other state specific programs
- Avoid surprises!

Engaged Quality Programs

How To Engage Your Staff With PT Results

4

Provide them the study statistical data

Avoid the “Us” vs. “Them” mentality

Promote Healthy Competition

Reward your lab for a perfect performance

What About Your Reward...?

Reward Yourself With...

1. A laboratory staff fully engaged in your quality and PT Program.
2. Develop a quality based environment.
3. Avoid “The PT standard is always wrong!” – it’s **them** not **us**.

Never be afraid to ask for help...

Need Technical Assistance



Tel: 1-866-942-2978

Email: info@phenova.com

- Seek out your PT provider for technical help.
- We have over 300 year of combined experience.
- We have been in your shoes and worked in laboratories ourselves.

Your Success is Our Success!

Are They The Right PT Provider For Me?

Look for a PT Provider Who:

- Provides study statistics and your laboratory data
- Use PT results for your DOC reporting
- Generate reports for training records
- Allows you to customizable format to review and import data into your database

Have You Heard
of PT Manage?



PT Manage™

Upload Data. Download Insight.

PT Manage™

Empowering QA Managers

Simple Upload and Organization

- Instant Enrollment and Email Reminders
- Automatic Data Upload from LIMS Generated EDD
- Manually Enter or Revise Data While the Study is Open

Custom Data Analysis

- Full Network Visibility
- Downloadable CSV Files
- Automatic DOC and Exception Reports
Exception Reports

Gain Insight by Finding Answers to Performance Questions

- **Spot Analytical Trends Before they Become Problematic**
“Which tests are most challenging for our lab?”
- **Identify Leadership Opportunities**
“Does a certain analyst consistently succeed with a particular test?”
- **Increase Network Collaboration**
“Which labs are outstanding performers? I would like to spread best practices and technical expertise across the network.”



PT Manage™

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[Click here to take a virtual tour](#)



Questions or Comments?

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Thank You!