

SERVICE PACKAGE

REMOTE DIGITAL VISUAL INSPECTION FACILITY REVIEW & PLANNING

THE PURPOSE

This document is composed to assist our clients and the supply chain to help them understand the technical capabilities, benefits, services and key team milestones associated with our world leading RDVI review and planning services



VERITECH GROUP



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RDVI FACILITY REVIEW & PLANNING

The RDVI Facility Review and Planning Package integrates Vertech's Remote Digital Visual Inspection (RDVI) team with asset integrity engineers and shutdown planning teams to help put together detailed work plans to execute remote inspections of pressure equipment.

Our team's approach encompasses all areas of inspection activities such as scaffolding, isolations, permitry, and nozzle opening requirements in order to help ensure that all work scopes are performed as efficiently as possible. Through this evaluation process, we are able to help reduce the amount of onsite labour, resources and operational planning required to execute the overall scope of work.

History has proven that RDVI integration and review during the Turnaround planning stages of the project helps to capitalise on RDVI capabilities, creates significant savings, increases inspection coverage and reduces turnaround time to help bring the facility online faster.

KEY FOCUS AREAS

- Reduce mechanical / scaffold / crane costs and resources
- Select the best access points to enable the inspection to be completed with integrity
- Ensure the correct inspection camera is applied
- Detailed RDVI specific Inspection and Test Plans (ITP) to increase inspection coverage and build confidence for plant operations
- Detailed RDVI specific Vessel Access Plans (VAP)
- Reduce Turnaround time frame & cost
- Increase process integrity data capture for process/operations
- Reduce Confined Space Entries (CSEs) & intrusive inspection requirements
- Increase the number of repeatable comparable inspections for future degradation analysis
- Reduce sim-ops clashes and high risk activities
- Increase data availability for your Asset Integrity Management (AIM) assessments
- Reduce number of staff/personnel on site and subsequent logistics

Client:	Acme
Site:	Sharp Platform
Task Number:	456-V-14100
Description:	CO2 Absorber

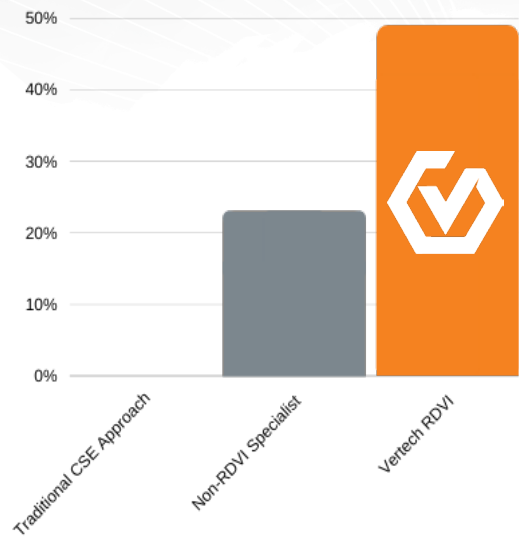
RDVI Vessel Access Plan			
Nozzle No.	RDVI Opening Requirements	RDVI Camera	Work Area Size
N6	Full Removal of the Valve Assembly	G8	Type 1
N10	Full Removal of the Valve Assembly	G8	Type 1
M3	Open Manway Required	LPT	Type 3
N12	Remove Blind Flange	SPT	Type 1
N1	Jack Flanges apart / Remove Slip Plate	G8	Type 1
M1	Open Manway Required	LPT	Type 5
N9	Open Nozzle Required	G8	Type 1
RDVI Equipment and Tooling			
240V Non Intrinsic safe Camera/Video Inspection equipment, Basic hand tools, Still Camera			
RDVI Requirements			
240V power and Shelter from Weather			
Atmospheric Requirements			
Oxygen	CH4 % LEL	Pressure	Temperature
Upper - XX.X%	Upper - XX.X%	XXXXX	XXXXX
Lower - XX.X%	Lower - XX.X%		
Opening & Closing Instructions			
Vertech's Campaign Execution Team provides complete end-to-end assistance with campaigns, projects and turnarounds. Our RDVI technicians have a wide variety of inspection experience and are specifically trained across the full suite of RDVI technologies, allowing them to assess each situation and apply the correct tooling on a case by case basis.			
Nitrogen Safety			
What sets Vertech's RDVI Team apart is that our experts understand the needs of a variety of stakeholder groups, from onsite personnel to upper management. Our team works with each group every step of the way to help them understand and interpret the relevant data, results & information.			
Other Notes & Comments			

BENEFITS OF SPECIALISED RDVI REVIEWS

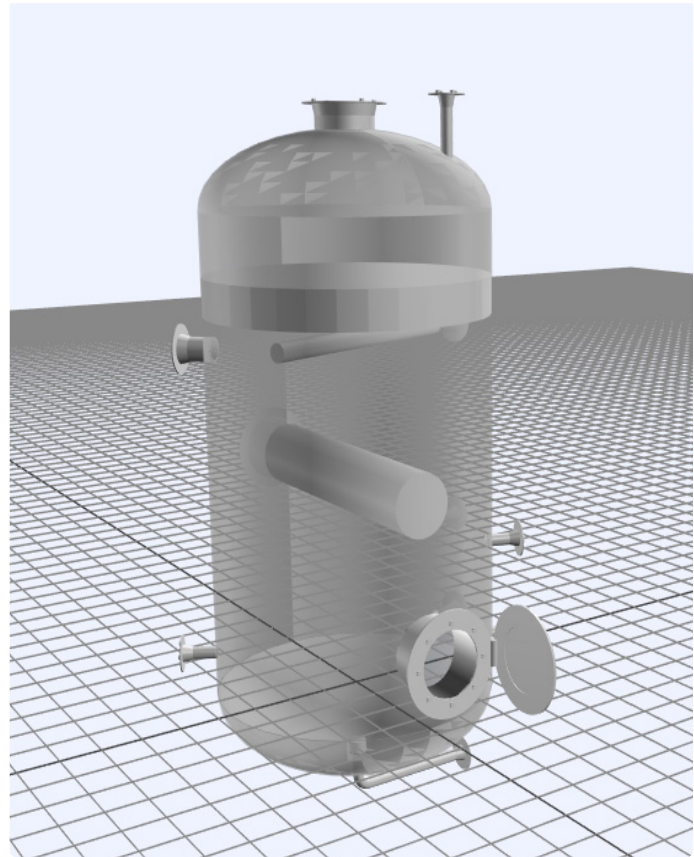
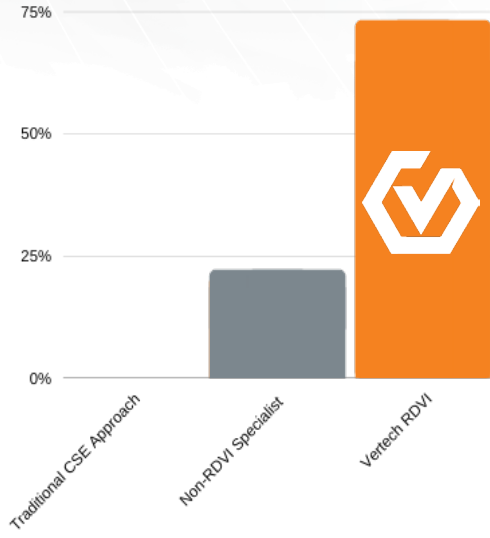
Throughout our team's history of executing this type of specialist work, we have seen a number of non-RDVI specialists attempt this, achieving limited success. This is not an issue for our team, as we have the experience, learnings and knowledge that can only come from 20 years of dedicated RDVI work.

On top of this, each of our technicians have a true passion for what they do and a natural desire to achieve great results. Our team carries a sense of pride in being able to provide our clients with higher levels of coverage so they can have the confidence to operate their plant safely.

POTENTIAL REDUCTIONS IN TURNAROUND TIMES

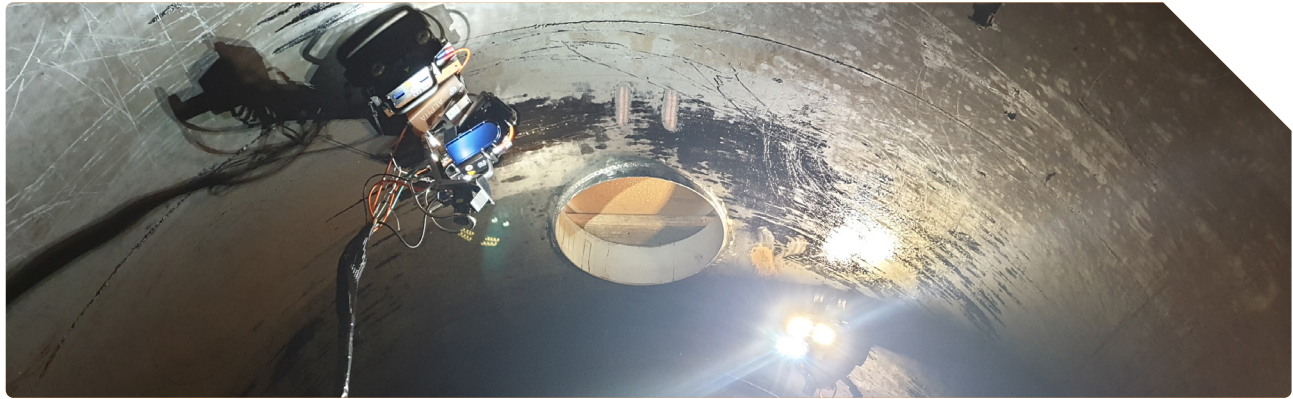


POTENTIAL REDUCTIONS IN TURNAROUND COSTS



RDVI Inspection & Test Plan											
Client:	Acme										
Site:	Sharp Oil Platform										
Tag Number:	SC-1801										
Description:	Dehydration Bed										

Ref No.	Location of Inspection	Client Document Number	Access Point	Regulatory Instruments						RDVI Specific Requirements	Inspection Notes
				General Conditions	Visual Inspection	Thermal Imaging	Ultrasonic Thickness	Leak Detection	Corrosion Monitoring		
1	Upper Dome & Neck	AP15080V0001.0	AS	X	X	X	X	X	X	UPT	Examine for erosion, general corrosion, surface corrosion, pitting and deposits. Check for cracks in and around the circumferential and longitudinal welds. Pay particular attention to areas that are exposed to vapour and areas that liquids and deposits have settled and also liquid vapour interfaces as these areas may have pitting and/or corrosion.
2	Shell	AP15080V0001.0	AS	X	X	X	X	X	X	UPT	Examine for erosion, general corrosion, surface corrosion, pitting and deposits. Check for cracks in and around the circumferential and longitudinal welds. Pay particular attention to areas that are exposed to vapour and areas that liquids and deposits have settled and also liquid vapour interfaces as these areas may have pitting and/or corrosion.
3	Nozzle A1, N6, N1, N10, N12 & N9	AP15080V0001.0	AS	X	X	X	X	X	X	UPT	Examine the access to shell weld for cracking, corrosion and erosion. Check for blockages, debris and deposits in the nozzle.
4	Internal Flange	AP15080V0001.0	AS	X	X	X	X	X	X	UPT	Inspect for corrosion, mechanical damage, distortion and cracking. Examine all fastenings and support clamping for loose bolts and cracking in and around the fastenings.



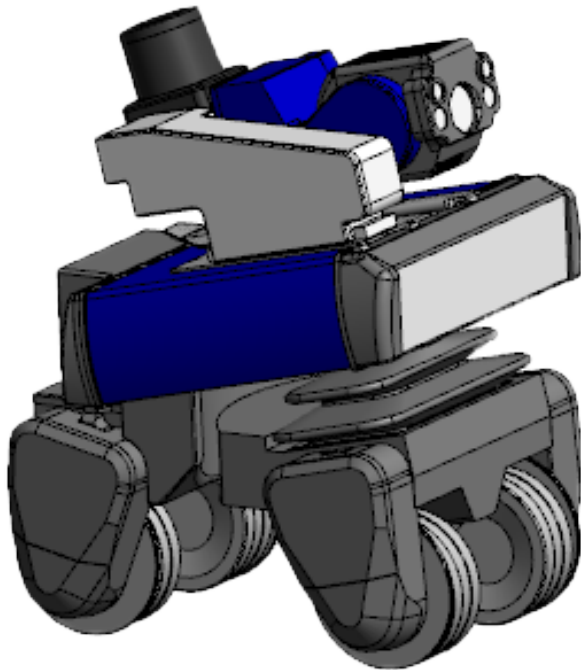
OUR TEAM'S MILESTONES

Over the last 20 years, our team has been at the forefront in the RDVI industry, setting the standards for others to follow. Despite this, our highly experienced team is never satisfied with resting on their laurels, preferring to grow their knowledge and skill set. Our team's year on year innovations and improvements have put us on solid ground for 2020.

Our previous successes have built a foundation for key industry innovations.



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