



Project Execution Plan

PN-975 12" Pipeline Abandonment

4pt DSV Epic Explorer

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1.0 DEFINITIONS AND ACRONYMS

BV	Ball Valve
CP	Cut Point
CV	Check Valve
DSV	Dive Support Vessel
DPR	Daily Progress Report
DWS	Diamond Wire Saw
QMS	Quality Management System
HP	High Pressure
HSE	Health, Safety and Environmental
LP	Low Pressure
MOC	Management of Change
PPE	Personal Protection Equipment
PL	Pipeline
PV	Pump Vessel
TOS	TETRA Offshore Services
SSTI	Subsea Tie-in

2.0 INTRODUCTION

Peregrine Oil & Gas, LP (Company) has a requirement for diving and Dive Support Vessel (DSV) services to abandon in-place 12" pipeline segment 8133 at the PN-975 block. Company has requested Epic Divers and Marine (Contractor) to provide a procedure for the abandonment in-place operations for the 12" pipeline.

The Epic DSV Superintendent will follow these procedures provided weather and outside circumstances permit. Should the Superintendent determine that the sequence of events or procedures requires altering the company representative will be notified before changes are implemented.

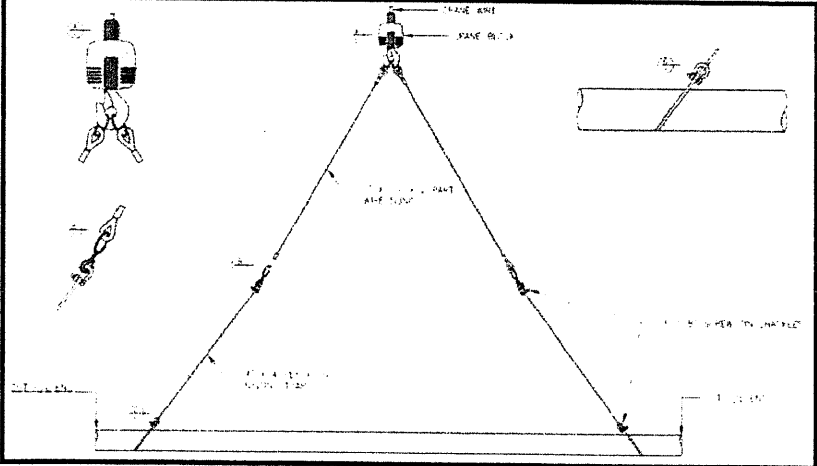
3.0 SAFETY

All activities shall be conducted in accordance with EPIC Diving and Marine Safety Standards. Every person involved with this work is authorized to stop any activity at any time if that individual believes the activity poses a danger of personal injury or equipment damage or environmental harm.

4.0 DOCKSIDE MOBILIZATION – DSV

Step	DSV / PN-975 (-165')	✓																																				
1	<p>Dive Support Vessel (DSV) and the Pumping Vessel (PV) will be mobilized.</p> <table><tr><td colspan="2">DSV is to take delivery of the following;</td><td colspan="2">PV is to take delivery of the following;</td></tr><tr><td>QTY</td><td>Description</td><td>QTY</td><td>Description</td></tr><tr><td>2</td><td>12" Plumbers Plugs</td><td>1</td><td>DP1 Supply Vessel</td></tr><tr><td>3</td><td>Pallets of 3:1 Bags</td><td>1</td><td>H.P. Pump Spread</td></tr><tr><td>1</td><td>12" 600# & 900# Flange w/ Hardware</td><td>1</td><td>Temporary Pig Launcher</td></tr><tr><td></td><td></td><td>1</td><td>375 scfm Air Compressor</td></tr><tr><td></td><td></td><td>1</td><td>1k BB Tugger</td></tr><tr><td></td><td></td><td>1</td><td>50 bbl Tank</td></tr><tr><td></td><td></td><td>1</td><td>12" 5-7 lb. RCC Bullet Nose Poly Pig</td></tr></table>	DSV is to take delivery of the following;		PV is to take delivery of the following;		QTY	Description	QTY	Description	2	12" Plumbers Plugs	1	DP1 Supply Vessel	3	Pallets of 3:1 Bags	1	H.P. Pump Spread	1	12" 600# & 900# Flange w/ Hardware	1	Temporary Pig Launcher			1	375 scfm Air Compressor			1	1k BB Tugger			1	50 bbl Tank			1	12" 5-7 lb. RCC Bullet Nose Poly Pig	
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2	All materials and equipment will be inspected prior to removal from the trucks. The trucks will be released and the Bill of Lading signed only after Epic/Peregrine have accepted the materials. Any damage will be recorded and notifications to the responsible party made promptly.																																					
3	Once loaded, the materials will be inventoried and stored appropriately.																																					
4	Upon arrival, personnel must present photo ID to dockside security before being allowed to board the vessel.																																					
5	Once personnel have boarded the vessel they will report to the Vessel Captain. Newly arriving personnel will be required to receive vessel orientation before receiving their bunk assignment.																																					
6	<p>Prior to departure, a project kick off meeting will be conducted. The agenda will include, but not be limited to:</p> <ul style="list-style-type: none">Review of this Scope of Work Procedure.Perform Level II HAZID																																					

5.0 PN-975 12" PIPELINE ABANDONMENT PROCEDURE – DSV

Step	DSV & Pump Vessel 12" Segment 8133 - Pig & SSTI Abandon In-Place (-165 FSW)	✓
1	DSV will transit to the PN-948 20" SSTI & the PV is to transit to the PN-975-A platform	
2	PV will set up at the "A" platform	
3	Sonar and divers will locate the PN-948 20" SSTI	
4	DSV will to set out anchors at the PN-948 20" SSTI per the proposed anchor plots	
5	Divers will roll back the existing concrete mats, hand jet and remove bags as needed to uncover the SSTI	
6	Divers will close the mainline ball valve (MLBV) on the SSTI and then open a 1/4 turn	
7	Pumping crew at the "A" platform will remove the required topside flange in order to install the temporary pig launcher Note: The topside flange size is unknown	
8	Pump crew will load the 12" poly pig into the temporary launcher, then will connect a 2" HP hose from the HP pump, through a flow meter and to the launcher, then push the 12" pig 50' from the launcher. Pump crew will then open the launcher door to verify that the pig has left the launcher. Pump crew will continue to push the pig from the "A" platform to the SSTI with 6,433 bbls (100% of volume) of seawater. When the pig arrives at the 1/4 open BV at the SSTI a spike should be seen on the pressure chart recorder and pumping is to stop. If after 6,433 bbls a spike is not noted, continue to pump an additional 10% (643 bbls). If no spike is noted after pumping 110% of the line volume, it will be assumed that the pig is at the valve. Note: 12" PL Length = 46,260' Note: 12" Riser Length = 210'+/- Note: 12" ID = 11.938" Estimated Note: 12" PL & Riser 100% Volume = 6,433 bbls Estimated Note: 12" PL & Riser 110% Volume = 7,077 bbls Estimated	
9	Divers will close valve the BV at the SSTI	
10	Pumping crew is to bleed off the pressure in the pipeline taking returns into the 50bbl tank onboard the PV	
11	PV will demobilize	
12	Divers will set up a pollution dome at the SSTI flange	
13	Divers will disconnect the subsea flange Note: The subsea flange size is unknown	
14	Divers will set up a pollution dome at the SSTI 20' past flange	
15	Divers will cold cut the pipeline	
16	<p>The 12" x 20' cut section will be rigged with (2) 4"X 4 PLY X 10' nylon lifting straps double wrapped on the pipe section. DSV crane will be lowered with a 2-part 1" wire rope sling with 1-1/8" shackles. Diver will rig the wire rope slings to the nylon straps and the section will be recovered to the deck of the DSV.</p> 	

17	Divers will install a 12" flange with a ½" Pleeco bleeder valve on the SSTI with a hand-held torque wrench	
18	Divers install 1 pallet of 3:1 sand/cement bags on the pipeline towards the SSTI	
19	Divers will install a 12" plumbers plug on the pipeline towards the platform and install 1 pallet of 3:1 sand/cement bags on the pipeline end	
20	Divers will roll the existing mats back over SSTI	
21	DSV will recover anchors	
22	DSV will transit to the PN-975-A platform	
23	DSV will to set out anchors at the "A" platform per the proposed anchor plots	
24	Divers will excavate the 12" tube turn	
25	Divers will set the pollution dome 20' from the tube-turn	
26	Divers will cold the cut the pipeline	
27	Divers will cold the cut riser 5' above tube-turn	
28	The cut section will be rigged with (2) 4"X 4 PLY X 10' nylon lifting straps double wrapped on the pipe section. DSV crane will be lowered with a 2-part 1" wire rope sling with 1-1/8" shackles. Diver will rig the wire rope slings to the nylon straps and the section will be recovered to the deck of the DSV.	
29	Divers will install a 12" plumbers plug towards the SSTI and install 1 pallet of 3:1 sand/cement bags on the pipeline end	
30	DSV will recover anchors	
31	DSV will demobilize	