ISP-KALISINDH PHASE II LIFT MICRO IRRIGATION PROJECT (PIPE LINE)
DISTRICT KHANDWA & DEWAS
ALTERNATIVE MAP

SOI FEATURE

Administrative Feature

- District boundary
- Subdivision, tehsil, taluk
- Village

Communication Feature

- Railway line Broad gauge
- Railmeter Narrow Gauge
- Road metalled
- Road Fair Weather
- Cart-track
- Pack-track/Foot Path
- Power line

Natural Feature

- Contour
- River bank
- Stream dry
- Stream perennial
- Water body Pernnial (River /Tank)

Other Feature

- Bridge on track/footpath
- Church
- Chhatri
- Dam
- Fort
- Graves
- Hut temporary/Permanent
- Mosque/Idgah
- Railway station hut
- Relative height position 15 r
- Temple
- Triangulation station ▲
- Tube well/pump house
- Dug Well ●
- Height 657

SOI TOPOSHEET	
55-A-8	55-A-12
55-B-5	55-B-9
55-B-6	55-B-10
55-B-7	55-B-11
55-B-8	55-B-12

Legend

- ALTERNATE-1, FINAL
- ALTERNATE-2
- ALTERNATE-3
- PH,BPT,& DC

ISP-KALISINDH PHASE II MICRO LIFT IRRIGATION SCHEME, NVDA

ALTERNATIVE ROUTE EXAMINATION FOR PUMP HOUSE 1 TO PUMP HOUSE 3

S NO	PIPE LINE	LENGTH IN FOREST(M)	LENGTH IN REVENUE	TOTAL LENGTH(M)	Remark
ALT-1	PIPE LINE	27590	1010	28600	Final
ALT-2	PIPE LINE	32712	2749	35461	-
ALT-3	PIPE LINE	30127	2239	32366	-

Alternative-1 is found to be **more suitable** option because of the following reasons

- In alternatives 2 & 3 the forest length is more than the alternative 1.
- In alternative 2 & 3 total length of the rising main is much more than the alternative-1 adding up to extra cost.
- In alternatives 2 & 3 at many places the permanent structures are coming very near to the alignment and it is very difficult to avoid them without further increasing the length of the rising main.
- And in alternative 2& 3 there are many hillocks as it is crossing forest at many places and it is very difficult to route the pipeline.
- In alternative 2 & 3 the power consumption is more since the length is considerably higher leading to higher friction losses. As this project is having stringent clause on power consumption, hence alternative 1 is most suitable.

ALTERNATIVE ROUTE EXAMINATION FOR PUMP HOUSE 3 TO COMMAND AREA

S NO	PIPE LINE	LENGTH IN FOREST(M)	LENGTH IN REVENUE	TOTAL LENGTH(M)	REMARK
ALT-1	PIPE LINE	11860	5881	17741	Final
ALT-2	PIPE LINE	11950	10825	22775	-
ALT-3	PIPE LINE	13082	10536	23618	-

Alternative-1 is found to be more suitable option because of the following reasons

- In this section of pipe, alternative 1 & 2 are having similar routing
- In this section of piping, all the alternatives are having almost equal length but alternative 1 is having least length of pipe in forest.
- In alternative 3, pump house is coming very near to settlement area and difficult to construct the permanent structures at these locations
- And in alternatives 3 there are many hillocks along the alignment and it is very difficult to route the pipeline.

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