



# HINDUSTAN PETROLEUM CORPORATION LIMITED

Risk Management Division - AI-Powered Analysis

## COMPREHENSIVE JOURNEY RISK MANAGEMENT ANALYSIS REPORT

Enhanced with Artificial Intelligence & Visual Evidence

### ROUTE ANALYSIS DETAILS

Route ID: a3c3ec01-48e...

Origin: Unnamed Road, Oil Industry Terminals, Partapu

Destination: V85H+WR5, Saharanpur Rd, Ambehata Dehat, Ambh

Total Distance: 131 km

Estimated Duration: 2 hours 27 mins

Analysis Date: June 09, 2025

Report Generated: 12:46 PM

*This report contains comprehensive analysis including visual evidence and AI-powered insights*

COMPREHENSIVE ROUTE OVERVIEW & STATISTICS

ROUTE INFORMATION

From Address	Unnamed Road, Oil Industry Terminals, Partapur, Meerut,
To Address	V85H+WR5, Saharanpur Rd, Ambehata Dehat, Ambheta, Uttar
Total Distance	131 km
Estimated Duration	2 hours 27 mins
Route Points Analyzed	2,684
Analysis Timestamp	2025-06-09 07:04:45
Overall Safety Score	0/100 (DANGEROUS)

HAZARD ANALYSIS SUMMARY

Total Sharp Turns Identified	15
Extreme Turns (>=90 deg)	6
High-Risk Blind Spots (80-90 deg)	0
Sharp Danger Zones (70-80 deg)	1
Moderate Turns (45-70 deg)	8
Network Dead Zones	6
Poor Coverage Areas	1

[!] OVERALL SAFETY ASSESSMENT: HIGH RISK (Score: 0/100)

## IDENTIFIED RISK FACTORS

- \* 6 extreme turns requiring extreme caution
- \* 6 communication dead zones
- \* 1 areas with poor network coverage

## SAFETY RECOMMENDATIONS

- \* Reduce speed at identified sharp turns and blind spots
- \* Maintain extra distance from other vehicles in risk areas
- \* Ensure vehicle is in optimal condition before journey
- \* Carry emergency communication devices for dead zones
- \* Plan rest stops at safe locations identified in the route
- \* Monitor weather conditions before and during travel

SHARP TURNS ANALYSIS WITH DUAL VISUAL EVIDENCE

Total Sharp Turns Detected	15
Extreme Danger Turns (>=90 deg)	6
High-Risk Blind Spots (80-90 deg)	0
Sharp Danger Zones (70-80 deg)	1
Moderate Risk Turns (45-70 deg)	8
Most Dangerous Turn Angle	180.0 deg
Average Turn Angle	88.4 deg
Street View Images Available	7
Satellite Images Available	7
Route Map Images Available	1
Total Visual Evidence Files	15

[OK] VISUAL EVIDENCE STATUS: EXCELLENT VISUAL EVIDENCE (14 images)

TURN CLASSIFICATION SYSTEM

Angle Range	Classification	Risk Level	Max Speed	Safety Requirement
>=90 deg	EXTREME BLIND S	CRITICAL	15 km/h	Full stop may be requ
80-90 de	HIGH-RISK BLIND	EXTREME	20 km/h	Extreme caution requi
70-80 de	BLIND SPOT	HIGH	25 km/h	High caution required
60-70 de	HIGH-ANGLE TURN	MEDIUM	30 km/h	Moderate caution requ
45-60 de	SHARP TURN	LOW	40 km/h	Normal caution requir

CRITICAL TURNS WITH DUAL VISUAL EVIDENCE ANALYSIS

CRITICAL TURN #1: 180.0 deg - EXTREME BLIND SPOT - CRITICAL RISK

GPS Coordinates	29.799710, 77.462060
Turn Angle	180.0 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	1 images available
Satellite Images	1 images available
Total Visual Evidence	2 images for analysis

VISUAL EVIDENCE FOR TURN #1:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_1\_h0.jpg  
Size: 8.6 KB  
GPS: 29.7997, 77.4621

- ROAD ANALYSIS:
- \* Turn angle: 180.0 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_1.png  
Size: 317.6 KB  
GPS: 29.7997, 77.4621

- AERIAL ANALYSIS:
- \* Turn geometry: 180.0 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck

CRITICAL TURN #2: 159.6 deg - EXTREME BLIND SPOT - CRITICAL RISK

GPS Coordinates	29.800050, 77.458640
Turn Angle	159.6 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	2 images available
Satellite Images	2 images available
Total Visual Evidence	4 images for analysis

VISUAL EVIDENCE FOR TURN #2:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_2\_h0.jpg  
Size: 59.0 KB  
GPS: 29.8000, 77.4586

- ROAD ANALYSIS:
- \* Turn angle: 159.6 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_2.png  
Size: 308.2 KB  
GPS: 29.8000, 77.4586

- AERIAL ANALYSIS:
- \* Turn geometry: 159.6 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck



CRITICAL TURN #3: 159.6 deg - EXTREME BLIND SPOT - CRITICAL RISK

GPS Coordinates	29.800050, 77.458640
Turn Angle	159.6 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	2 images available
Satellite Images	2 images available
Total Visual Evidence	4 images for analysis

VISUAL EVIDENCE FOR TURN #3:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_2\_h0.jpg  
Size: 59.0 KB  
GPS: 29.8000, 77.4586

- ROAD ANALYSIS:
- \* Turn angle: 159.6 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_2.png  
Size: 308.2 KB  
GPS: 29.8000, 77.4586

- AERIAL ANALYSIS:
- \* Turn geometry: 159.6 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck



CRITICAL TURN #4: 113.0 deg - EXTREME BLIND SPOT - CRITICAL RISK

GPS Coordinates	29.801760, 77.459240
Turn Angle	113.0 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	2 images available
Satellite Images	2 images available
Total Visual Evidence	4 images for analysis

VISUAL EVIDENCE FOR TURN #4:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_4\_h0.jpg  
Size: 59.5 KB  
GPS: 29.8018, 77.4592

- ROAD ANALYSIS:
- \* Turn angle: 113.0 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_4.png  
Size: 342.8 KB  
GPS: 29.8018, 77.4592

- AERIAL ANALYSIS:
- \* Turn geometry: 113.0 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck

CRITICAL TURN #5: 113.0 deg - EXTREME BLIND SPOT - CRITICAL RISK

GPS Coordinates	29.801760, 77.459240
Turn Angle	113.0 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	2 images available
Satellite Images	2 images available
Total Visual Evidence	4 images for analysis

VISUAL EVIDENCE FOR TURN #5:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_4\_h0.jpg  
Size: 59.5 KB  
GPS: 29.8018, 77.4592

- ROAD ANALYSIS:
- \* Turn angle: 113.0 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_4.png  
Size: 342.8 KB  
GPS: 29.8018, 77.4592

- AERIAL ANALYSIS:
- \* Turn geometry: 113.0 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck



CRITICAL TURN #6: 97.4 deg - EXTREME BLIND SPOT - CRITICAL RISK	
GPS Coordinates	29.804640, 77.454670
Turn Angle	97.4 deg (Deviation from straight path)
Risk Classification	EXTREME BLIND SPOT - CRITICAL Risk Level
Recommended Maximum Speed	15 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	1 images available
Satellite Images	1 images available
Total Visual Evidence	2 images for analysis

VISUAL EVIDENCE FOR TURN #6:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_6\_h0.jpg  
Size: 48.4 KB  
GPS: 29.8046, 77.4547

- ROAD ANALYSIS:
- \* Turn angle: 97.4 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: CRITICAL
  - \* Max speed: 15 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_6.png  
Size: 353.5 KB  
GPS: 29.8046, 77.4547

- AERIAL ANALYSIS:
- \* Turn geometry: 97.4 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck

CRITICAL TURN #7: 75.7 deg - BLIND SPOT - HIGH RISK

GPS Coordinates	29.625320, 77.439180
Turn Angle	75.7 deg (Deviation from straight path)
Risk Classification	BLIND SPOT - HIGH Risk Level
Recommended Maximum Speed	25 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	1 images available
Satellite Images	1 images available
Total Visual Evidence	2 images for analysis

VISUAL EVIDENCE FOR TURN #7:

STREET VIEW ANALYSIS:



STREET VIEW DATA:  
File: streetview\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_7\_h0.jpg  
Size: 50.9 KB  
GPS: 29.6253, 77.4392

- ROAD ANALYSIS:
- \* Turn angle: 75.7 degrees
  - \* Visibility: Limited due to sharp curve
  - \* Hazard level: HIGH
  - \* Max speed: 25 km/h

SATELLITE VIEW ANALYSIS:



SATELLITE VIEW DATA:  
File: satellite\_a3c3ec01-48e5-4165-afd4-942977ae3e5b\_turn\_7.png  
Size: 299.5 KB  
GPS: 29.6253, 77.4392

- AERIAL ANALYSIS:
- \* Turn geometry: 75.7 deg curve
  - \* Road curvature: Sharp bend visible
  - \* Terrain context: Aerial perspective
  - \* Traffic flow impact: Potential bottleneck

CRITICAL TURN #8: 68.3 deg - HIGH-ANGLE TURN - MEDIUM RISK	
GPS Coordinates	28.960250, 77.639950
Turn Angle	68.3 deg (Deviation from straight path)
Risk Classification	HIGH-ANGLE TURN - MEDIUM Risk Level
Recommended Maximum Speed	30 km/h
Safety Distance Required	Minimum 50m approach visibility
Driver Action Required	Reduce speed, check mirrors, signal early
Street View Images	0 images available
Satellite Images	0 images available
Total Visual Evidence	0 images for analysis

No visual evidence available for Turn #8

Images may be available at nearby coordinates: 28.9602, 77.6399

COMPREHENSIVE POINTS OF INTEREST ANALYSIS

Total POIs Identified	119
Emergency Services	44
Essential Services	25
Other Services	50
Coverage Score	100/100
Service Availability Rating	EXCELLENT

SERVICE AVAILABILITY: EXCELLENT SERVICE COVERAGE (100/100)



MEDICAL FACILITIES - Emergency Healthcare Services (25 found) - CRITICAL

#	Facility Name	Location/Address	Distance	Notes
1	Sanjeevani Yoga An	Unnamed Road, Surya P	Along ro	Emergenc
2	Chhatrapati Shivaj	Swami Vivekanand Subh	Along ro	Emergenc
3	Dr Lal PathLabs -	Shop No 17, Khana Pla	Along ro	Emergenc
4	Kalka Dental Colle	near Partapur Flyover	Along ro	Emergenc
5	Davki Nandan Hospi	Devkinandan hospital,	Along ro	Emergenc
6	kailashi super spe	C-2 Shardhapuri Phase	Along ro	Emergenc
7	Hans Multispeciali	512, Sardhana Road, O	Along ro	Emergenc
8	Prakash Hospital	1/108, Dantal Jatoli	Along ro	Emergenc
9	Omnibus Healthcare	1H, NH58, Ansal City,	Along ro	Emergenc
10	G.M. Modi Hospital	3P75+J72, Modipuram,	Along ro	Emergenc
11	Government Hospita	4GMR+XV2	Along ro	Emergenc
12	Community health c	4GMR+QWG, Meerut	Along ro	Emergenc
13	medical store	4GWP+9HQ, Dahar	Along ro	Emergenc
14	Aadi Medical Store	Jasar Sultannagar	Along ro	Emergenc
15	Panwar Medical Sto	5G49+MVV, Gotka	Along ro	Emergenc

LAW ENFORCEMENT - Security & Emergency Response (18 found) - CRITICAL

#	Facility Name	Location/Address	Distance	Notes
1	Nauchandi Police S	Mohsin Bagh, Manzoor	Along ro	
2	Shatabdi Nagar Pol	WMPG+W37, Shatabdi Na	Along ro	
3	Police Choki Shubh	XJ5Q+9R6, NH58, Meeru	Along ro	
4	Pari Chowk	WJPR+VG3, Pari Chowk,	Along ro	
5	Police Choki VedVy	XJ7R+37V, NH58, Ved V	Along ro	
6	Police chawki	2MMF+C6W, Unnamed Roa	Along ro	
7	Police Station, Ka	B30 Sardhana Road, Ka	Along ro	
8	Police Chowki kasb	1/126, Shradha Puri R	Along ro	
9	Police Choki	2PP4+QH4, Krishna Nag	Along ro	
10	Police post Modipu	Bus Station, 2PX4+JVG	Along ro	
11	Police check post	4HP8+GG5, Karnal - Me	Along ro	
12	Police Station Sar	4GMR+54G	Along ro	
13	Diwan ji	4GR9+GX, Jasar Sultan	Along ro	
14	Police Station	7FR9+29Q, Budhana	Along ro	
15	Bai wala police st	7F54+GM5, Budhana Roa	Along ro	

FIRE & RESCUE - Emergency Response Services (1 found) - CRITICAL

#	Facility Name	Location/Address	Distance	Notes
1	Fire Station Parta	WMC5+X9P, Sector 2, M	Along ro	

FUEL STATIONS - Vehicle Refueling Points (25 found) - ESSENTIAL

#	Facility Name	Location/Address	Distance	Notes
1	IndianOil	Rithani, Delhi - Meer	Along ro	Fuel
2	cng pump meerut	WMJ5+6X6, Block 4A, S	Along ro	Fuel
3	Hindustan Petroleu	Ground Floor, Crossin	Along ro	Fuel
4	Allen Oil	WMG5+4FP, Sector 2, M	Along ro	Fuel
5	Raj Service Statio	Bhoor Baral, NH 58, M	Along ro	Fuel
6	IndianOil	Sardhana Road, Kanker	Along ro	Fuel
7	Nayara Filling Sta	279/1, Shradha Puri R	Along ro	Fuel
8	IndianOil	Ground Floor,NH 58, H	Along ro	Fuel
9	IndianOil	Roorkee Road, Vivek V	Along ro	Fuel
10	IndianOil	Ground Floor, Roorkee	Along ro	Fuel
11	RDML Energy Servic	Bhuni Crossing Binoli	Along ro	Fuel
12	Petrol Pump	Meerut	Along ro	Fuel
13	Shiv Kailash Fuel	Meerut Karnal, Nation	Along ro	Fuel
14	Hindustan Petroleu	Khasra No 29 NH 709A,	Along ro	Fuel
15	IndianOil	Ground Floor, Julhera	Along ro	Fuel

EDUCATIONAL INSTITUTIONS - Speed Limit Zones (40 km/h) (25 found) - AWARENESS

#	Facility Name	Location/Address	Distance	Notes
1	Dewan Public Schoo	143, Delhi Road, Phas	Along ro	40 km/h
2	Bhai Joga Singh Pu	WMXM+H76, Surya Palac	Along ro	40 km/h
3	METRO PUBLIC SCHOO	Shatabdi Nagar, Ritha	Along ro	40 km/h
4	PRESIDENCY PUBLIC	WMPF+Q99, Delhi Road,	Along ro	40 km/h
5	SHEMROCK Smart Lea	Pocket B, NS-2, Shata	Along ro	40 km/h
6	St. Francis' Conve	Sardhana Road, Kanker	Along ro	40 km/h
7	St Mary's Academy	2M4X+H44, Cariappa Rd	Along ro	40 km/h
8	K.D. International	National Highway 58,	Along ro	40 km/h
9	J.P. International	opposite grand opera,	Along ro	40 km/h
10	American Kidz Play	Ark city D Block, Lax	Along ro	40 km/h
11	J.N.Public School	5GGW+WXW, Meerut	Along ro	40 km/h
12	Chaudhary Amar Sin	4HQ6+VMQ, Gotka	Along ro	40 km/h
13	Kadam Public Schoo	Bhooni Chauraha, Sham	Along ro	40 km/h
14	Guljaridrishi	4HP8+GG3, Road, Ranch	Along ro	40 km/h
15	saraswati shishu m	4GWP+HM9, Dahar	Along ro	40 km/h

FOOD & REST - Meal Stops & Driver Rest Areas (25 found) - CONVENIENCE

#	Facility Name	Location/Address	Distance	Notes
1	Hotel Bravura Gold	Delhi Roorkee, Bypass	Along ro	
2	CROWN Hotel & Rest	Ved Vyas Puri -Phase	Along ro	
3	Domino's Pizza   S	Shop No. 7A, Upper Gr	Along ro	
4	KFC	Sports Goods Complex,	Along ro	
5	SF Food Pure Veg P	3rd Floor, Food Court	Along ro	
6	Biggies Restaurant	NH-58, NH58, Meerut	Along ro	
7	Meera's Bistro Amo	2MF8+M9, Kanker Khera	Along ro	
8	Anupam Fast Food C	2PX4+HRP, Meerut Bypa	Along ro	
9	Aangan restaurant	160, opposite Hotel D	Along ro	
10	Veera deluxe Resta	2MQ8+9Q5, Sardhana By	Along ro	
11	Sunny restaurant	4HQ7+R7X, Bhuni	Along ro	
12	Fauji Restaurant &	4HP8+83G, Bhuni Chowk	Along ro	
13	CHAUDHARY DHABA	4HP9+XJJ, Sardhana -	Along ro	
14	Akki fast food	India	Along ro	
15	Green Vatika Resta	4HQC+5GH, Sardhana -	Along ro	

CRITICAL SERVICE GAPS IDENTIFIED

\* No critical service gaps identified - Good service coverage along route



COMPREHENSIVE NETWORK COVERAGE ANALYSIS

Analysis Points Tested	20
Overall Coverage Score	50.0/100
Coverage Status	MODERATE
Dead Zones Identified	6
Poor Coverage Areas	1
Good Coverage Areas	35.0%
Network Reliability Rating	LOW

NETWORK RELIABILITY: MODERATE (50.0/100)

SIGNAL QUALITY DISTRIBUTION ANALYSIS

Signal Quality Level	Points Count	Route %	Status
No Signal (Dead Zone)	6	30.0%	Critical
Fair Signal (2-3 bar)	6	30.0%	Good
Excellent Signal (4-5 bar)	2	10.0%	Good
Good Signal (3-4 bar)	5	25.0%	Good
Poor Signal (1-2 bar)	1	5.0%	Attention

CRITICAL COMMUNICATION PROBLEMS (7 areas)

DEAD ZONES - NO CELLULAR SERVICE (6 locations):

Zone #	GPS Coordinates	Impact Level	Recommendation
1	28.9497, 77.6591	CRITICAL	Use satellite phone or emergency services

2	28.9959, 77.6459	CRITICAL	Use satellite phone or emerg
3	29.0382, 77.6669	CRITICAL	Use satellite phone or emerg
4	29.4514, 77.3198	CRITICAL	Use satellite phone or emerg
5	29.7682, 77.4412	CRITICAL	Use satellite phone or emerg
6	29.8417, 77.3956	CRITICAL	Use satellite phone or emerg

POOR COVERAGE AREAS (1 locations):

Area #	GPS Coordinates	Signal Level	Recommendation
1	29.6244, 77.4386	WEAK	Download offline maps, carry

NETWORK COVERAGE RECOMMENDATIONS

- Route has 6 dead zones - consider satellite communication device
- Inform someone of your route and expected arrival time

EMERGENCY COMMUNICATION PLAN

- \* Download offline maps before travel (Google Maps, Maps.me)
- \* Inform someone of your route and expected arrival time
- \* Carry a satellite communication device for dead zones
- \* Keep emergency numbers saved: 112 (Emergency), 100 (Police), 108 (Ambulance)
- \* Consider two-way radios for convoy travel
- \* Identify nearest towers and repeater locations along route

COMPREHENSIVE WEATHER CONDITIONS ANALYSIS

Weather Analysis Points	10
Average Temperature	44.1 deg C
Temperature Range	43.5 deg C to 44.9 deg C
Average Humidity	13.1%
Average Wind Speed	2.4 km/h
Weather Conditions Detected	1 different types
Weather Risk Assessment	HIGH

TEMPERATURE STATUS: EXTREME HEAT WARNING (44.1 deg C)

WEATHER CONDITIONS BREAKDOWN

Weather Condition	Frequency	Route %	Risk Level	Driver Impact
Clear	10	100.0%	LOW	Good driving conditions

IDENTIFIED WEATHER RISKS (1 risks)

- 1. Extreme heat - risk of vehicle overheating - Take appropriate precautions

WEATHER-BASED VEHICLE PREPARATION

- \* Check engine cooling system and radiator fluid levels
- \* Ensure air conditioning is functioning properly
- \* Carry extra water for radiator and personal hydration
- \* Check tire pressure (heat increases pressure)

WEATHER-BASED DRIVING RECOMMENDATIONS

- 1. High temperatures - check vehicle cooling system and carry extra water

COMPREHENSIVE REGULATORY COMPLIANCE ANALYSIS

[!] COMPLIANCE STATUS: NEEDS ATTENTION (Score: 70/100)

VEHICLE & ROUTE COMPLIANCE DETAILS

Vehicle Type	Heavy Goods Vehicle
Vehicle Category	Heavy Goods Vehicle
Vehicle Weight Classification	18,000 kg
AIS-140 GPS Tracking Required	YES (Mandatory)
Route Origin	Unnamed Road, Oil Industry Terminals, Partapur, Me
Route Destination	V85H+WR5, Saharanpur Rd, Ambehata Dehat, Ambheta,
Total Route Distance	131 km
Estimated Travel Duration	2 hours 27 mins
Interstate Travel	NO

MANDATORY COMPLIANCE REQUIREMENTS

Requirement Category	Compliance Status	Action Required
Valid Driving Licens	REQUIRED	Verify license category matc
Vehicle Registration	REQUIRED	Ensure current registration
Vehicle Insurance	REQUIRED	Valid comprehensive insuranc
Route Permits	CONDITIONAL	Required for interstate/heav
AIS-140 GPS Device	REQUIRED	Install certified GPS tracki
Driving Time Limits	REQUIRED	Maximum 10 hours continuous
Vehicle Fitness Cert	REQUIRED	Valid pollution and fitness
Driver Medical Certi	REQUIRED	Valid medical fitness certif

COMPLIANCE ISSUES REQUIRING IMMEDIATE ATTENTION (2)

- 1. AIS-140 GPS tracking device required - Address before travel
- 2. Heavy vehicle - weight restrictions may apply - Address before travel

APPLICABLE REGULATORY FRAMEWORK

- \* Motor Vehicles Act, 1988 - Vehicle registration and licensing requirements
- \* Central Motor Vehicles Rules, 1989 - Technical specifications and safety
- \* AIS-140 Standards - GPS tracking and panic button requirements
- \* Road Transport and Safety Policy (RTSP) - Driver working hours
- \* Interstate Transport Permits - Required for commercial interstate travel
- \* Pollution Control Board Norms - Emission standards compliance
- \* Goods and Services Tax (GST) - Tax compliance for commercial transport
- \* Road Safety and Transport Authority - State-specific requirements

COMPLIANCE RECOMMENDATIONS

- 1. Ensure all vehicle documents are current and accessible
- 2. Verify driver license category matches vehicle type
- 3. Check route-specific permits and restrictions
- 4. Install AIS-140 compliant GPS tracking device

NON-COMPLIANCE PENALTIES & CONSEQUENCES

- \* Driving without valid license: Fine up to Rs 5,000 + imprisonment
- \* Vehicle without registration: Fine up to Rs 10,000 + vehicle seizure
- \* No insurance: Fine up to Rs 2,000 + vehicle seizure
- \* AIS-140 non-compliance: Permit cancellation + heavy fines
- \* Overloading violations: Fine Rs 20,000 + per excess ton
- \* Driving time violations: License suspension + fines
- \* Interstate without permits: Vehicle seizure + penalty
- \* Environmental violations: Fine up to Rs 10,000 + registration cancellation



## COMPREHENSIVE ELEVATION & TERRAIN ANALYSIS

Data Source	Google Elevation API (Live Data)
Total Analysis Points	20 coordinates
Minimum Elevation	244.9 meters above sea level
Maximum Elevation	284.0 meters above sea level
Average Elevation	264.0 meters above sea level
Total Elevation Range	39.1 meters
Terrain Classification	PLAINS
Driving Difficulty Level	LOW
Fuel Consumption Impact	LOW - Minimal impact on fuel consumption
Significant Changes Detected	0 elevation changes > 50m

### TERRAIN ASSESSMENT: PLAINS TERRAIN - EASY CONDITIONS

#### ELEVATION-BASED DRIVING CHALLENGES

- \* Minimal elevation changes with flat terrain
- \* Normal fuel consumption expected
- \* Standard vehicle performance throughout
- \* No significant gradient-related challenges

#### ELEVATION-SPECIFIC VEHICLE PREPARATION

- \* Standard vehicle maintenance check sufficient
- \* Normal fuel planning adequate
- \* Standard tire and brake inspection

#### FUEL CONSUMPTION IMPACT ANALYSIS

- \* Normal fuel consumption expected

- \* Standard fuel planning adequate
- \* Total ascent sections identified: 0
- \* Total descent sections identified: 0

COMPREHENSIVE TRAFFIC ANALYSIS

Route Segments Analyzed	10
Overall Traffic Score	100.0/100
Traffic Condition	EXCELLENT
Average Travel Time Index	0.94
Average Current Speed	55.4 km/h
Average Free Flow Speed	51.5 km/h
Heavy Traffic Segments	0
Moderate Traffic Segments	0
Free Flow Segments	10
Worst Congestion Areas	0.0% of route

TRAFFIC STATUS: EXCELLENT TRAFFIC CONDITIONS (100.0/100)

TRAFFIC-BASED RECOMMENDATIONS

- 1. Check current traffic conditions before departure
- 2. Consider public transportation alternatives for heavily congested routes
- 3. Plan rest stops during low-traffic segments

COMPREHENSIVE ROAD QUALITY & SURFACE CONDITIONS

Total Analysis Points	21
Road Quality Issues Detected	21
Critical Condition Areas	2
High Risk Areas	19
Medium Risk Areas	0
API Sources Used	google_roads, mapbox
Analysis Confidence	Medium
Overall Road Quality Score	3.8/10

ROAD QUALITY STATUS: POOR ROAD CONDITIONS (3.8/10)

IDENTIFIED ROAD QUALITY ISSUES (21 locations)

Location (GPS)	Issue Type	Severity	Speed Limit	Description
28.9497, 77.6	Critical Co	Critical	30 km/h	Critical road conditi
28.9959, 77.6	Poor Surfac	Critical	30 km/h	Critical road conditi
29.0382, 77.6	Minor Issue	High	40 km/h	Poor road surface con
29.0892, 77.6	Minor Issue	High	40 km/h	Poor road surface con
29.1456, 77.5	Poor Surfac	High	40 km/h	Poor road surface con
29.1900, 77.4	Minor Issue	High	40 km/h	Poor road surface con
29.2587, 77.4	Minor Issue	High	40 km/h	Poor road surface con
29.3313, 77.4	Poor Surfac	High	40 km/h	Poor road surface con
29.4109, 77.3	Poor Surfac	High	40 km/h	Poor road surface con
29.4514, 77.3	Poor Surfac	High	40 km/h	Poor road surface con

### VEHICLE-SPECIFIC ROAD QUALITY RECOMMENDATIONS

- \* Heavy vehicles: Reduce speed by 20% in areas with road quality scores below 6/10
- \* Check tire pressure more frequently when traveling through poor surface areas
- \* Increase following distance by 50% in road quality risk zones
- \* Plan additional maintenance checks after routes with multiple road quality issues
- \* Consider alternative routes for high-value or sensitive cargo in critical condition areas
- \* Carry emergency repair kit for tire damage in poor road surface zones

COMPREHENSIVE ENVIRONMENTAL RISK ASSESSMENT

Total Analysis Points	34
Eco-Sensitive Zones	2
Air Quality Risk Areas	0
Weather Hazard Zones	16
Seasonal Risk Areas	16
Overall Environmental Score	1.0/10
Primary Risk Level	Critical
API Sources Used	OpenWeather, Visual Crossing, Tomorrow.io, Google Places

ENVIRONMENTAL STATUS: CRITICAL ENVIRONMENTAL RISKS (1.0/10)

ENVIRONMENTAL RISKS IDENTIFIED (34 locations)

Risk Type	GPS Location	Severity	Category	Description
Pollution S	28.9497, 77.6	Medium	Ecologic	
Wildlife Sa	29.3046, 77.4	Critical	Ecologic	
High Uv Exp	28.9497, 77.6	High	Weather	High UV radiation lev
High Uv Exp	29.0099, 77.6	High	Weather	High UV radiation lev
High Uv Exp	29.0613, 77.6	High	Weather	High UV radiation lev
High Uv Exp	29.1442, 77.5	High	Weather	High UV radiation lev
High Uv Exp	29.2017, 77.4	High	Weather	High UV radiation lev
High Uv Exp	29.3046, 77.4	High	Weather	High UV radiation lev
High Uv Exp	29.4105, 77.3	High	Weather	High UV radiation lev
High Uv Exp	29.4632, 77.3	High	Weather	High UV radiation lev



## ENVIRONMENTAL COMPLIANCE & BEST PRACTICES

- \* Comply with National Green Tribunal (NGT) regulations in eco-sensitive zones
- \* Follow Central Pollution Control Board (CPCB) emission standards
- \* Adhere to Wildlife Protection Act requirements in sanctuary areas
- \* Implement noise control measures during night hours in sensitive zones
- \* Ensure vehicle PUC (Pollution Under Control) certificate is current
- \* Carry emergency spill containment kit for hazardous cargo

COMPREHENSIVE EMERGENCY PREPAREDNESS ANALYSIS

[!] EMERGENCY PREPAREDNESS: GOOD PREPAREDNESS (Score: 70/100)

EMERGENCY SERVICES AVAILABILITY ASSESSMENT

Medical Facilities (Hospitals)	25 facilities identified
Law Enforcement (Police)	18 stations identified
Fire & Rescue Services	1 stations identified
Communication Reliability	LOW
Network Dead Zones	6 critical areas
Emergency Response Time	Variable - depends on location and traffic
Overall Service Coverage	GOOD

CRITICAL EMERGENCY CONTACT NUMBERS - MEMORIZE OR SAVE

Emergency Service	Contact Number	When to Call	Response Type
National Emerge	112	Any life-threateni	Police/Fire/Medica
Police Emergenc	100	Crime, accidents,	Law enforcement
Fire Services	101	Fire, rescue, hazm	Fire & rescue team
Medical Emergen	108	Medical emergency	Ambulance service
Highway Patrol	1033	Highway accidents,	Traffic police

EMERGENCY FACILITIES ALONG ROUTE

MEDICAL FACILITIES (25 identified):

#	Hospital Name	Location	Services	Distance

1	Sanjeevani Yoga	Unnamed Road, Su	Emergency car	Along rout
2	Chhatrapati Shiv	Swami Vivekanand	Emergency car	Along rout
3	Dr Lal PathLabs	Shop No 17, Khan	Emergency car	Along rout
4	Kalka Dental Col	near Partapur FI	Emergency car	Along rout
5	Davki Nandan Hos	Devkinandan hosp	Emergency car	Along rout
6	kailashi super s	C-2 Shardhapuri	Emergency car	Along rout
7	Hans Multispecia	512, Sardhana Ro	Emergency car	Along rout
8	Prakash Hospital	1/108, Dantal Ja	Emergency car	Along rout
9	Omnibus Healthca	1H, NH58, Ansal	Emergency car	Along rout
10	G.M. Modi Hospit	3P75+J72, Modipu	Emergency car	Along rout

POLICE STATIONS (18 identified):

#	Police Station	Location	Services	Distance
1	Nauchandi Police	Mohsin Bagh, Man	Law enforceme	Along rout
2	Shatabdi Nagar P	WMPG+W37, Shatab	Law enforceme	Along rout
3	Police Choki Shu	XJ5Q+9R6, NH58,	Law enforceme	Along rout
4	Pari Chowk	WJPR+VG3, Pari C	Law enforceme	Along rout
5	Police Choki Ved	XJ7R+37V, NH58,	Law enforceme	Along rout
6	Police chawki	2MMF+C6W, Unname	Law enforceme	Along rout
7	Police Station,	B30 Sardhana Roa	Law enforceme	Along rout
8	Police Chowki ka	1/126, Shradha P	Law enforceme	Along rout

CRITICAL PREPAREDNESS GAPS (1 identified)

1. Multiple communication dead zones - Address before travel

EMERGENCY PREPAREDNESS CHECKLIST

- ☐ First aid kit with bandages, antiseptic, pain relievers
- ☒ Emergency contact numbers saved in phone and written backup

- [] Vehicle emergency kit - tools, spare tire, jumper cables
- [] Emergency water supply (minimum 2 liters per person)
- [] Non-perishable emergency food (energy bars, nuts)
- [] Flashlight with extra batteries or hand-crank model
- [] Emergency blanket or warm clothing
- [] Portable phone charger or power bank
- [] Emergency cash in small denominations
- [] Vehicle documents in waterproof container
- [] Road atlas or offline maps as backup
- [] Emergency whistle for signaling help

### EMERGENCY PREPAREDNESS RECOMMENDATIONS

1. Carry first aid kit and emergency supplies
2. Keep emergency contact numbers readily available
3. Inform someone of your travel plans and timeline
4. Consider satellite communication device for dead zones