## GENERAL NOTES

- 1. THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION. PROJECT SPECIFICATIONS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE VILLAGE OF NORTHFIELD, ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.
- 2. THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OF ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- 3. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS. STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION. THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS. THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
- 4. BEFORE ACCEPTANCE BY THE VILLAGE AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE VILLAGE OR HIS REPRESENTATIVES. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
- 5. WHENEVER THE PERFORMANCE OF WORK IS INDICATED ON THE PLANS AND NO. ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 6. ALL CONSTRUCTION WILL BE INSPECTED BY THE ENGINEER AND/OR THE VILLAGE. SPECIFICALLY ALL TRENCHES AND PIPE SHALL BE LEFT OPEN (BUT SAFELY BARRICADED) LINTIL INSPECTED AND APPROVED.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT.
- 8. WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS. GENERALLY. THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN.
- 9. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EOUIPMENT OR LABORERS TO EXISTING CONDITIONS, CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.
- 10. EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR, THE ENGINEER AND DEPARTMENT ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, J.U.L.I.E., THE RESPECTIVE VILLAGE, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.
- 11. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE LITELITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

## UTILITY/IEPA NOTES

- 1. THE CONTRACTOR SHALL PROVIDE A LIST OF WATER SERVICE MEASUREMENTS TO THE VILLAGE AND TO THE ENGINEER AT THE CONCLUSION OF THE JOB.
- 2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE VILLAGE OF NORTHEIELD AT (847) 441-3810 AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THE WATER MAIN
- 3. UNDERGROUND WORK SHALL INCLUDE TRENCHING, DEWATERING, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. CONTRACTOR SHALL PROVIDE "AS BUILT" DRAWINGS OF ALL WATERMAIN INSTALLATIONS.
- 4. DFW NON-SHEAR COUPLINGS AS MANUFACTURED BY NDS COMPANY OR APPROVED EQUAL SHALL BE USED FOR CONNECTIONS OF NEW PIPE TO EXISTING PIPE, AND WHERE DISSIMILAR PIPE AND JOINT MATERIALS ARE ENCOUNTERED. COUPLINGS SHALL BE A MINIMUM OF 8 INCHES LONG FOR CONNECTIONS OF 4-INCH THROUGH 8-INCH PIPE AND A MINIMUM OF 12 INCHES LONG FOR CONNECTIONS ON LARGER PIPES (THESE ARE SPECIAL ORDER ITEMS). NO STAINLESS STEEL SHEAR RINGS WILL BE ALLOWED.
- 6. ALL WATERMAIN TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PROPOSED OR EXISTING PAVEMENT, DRIVEWAYS, SIDEWALKS AND WITHIN THE ZONE OF INFLUENCE OF SUCH IMPROVEMENTS, AND/OR WHEREVER ELSE SHOWN ON THE CONSTRUCTION PLAN SHALL BE BACKFILLED WITH TRENCH BACKFILL AND THOROUGHLY COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 7. ALL STRUCTURE SECTIONS AND ADJUSTING RINGS SHALL BE SECURELY SEALED TO EACH OTHER OR TO THE FRAME, CONE SECTION OF THE STRUCTURE USING RESILIENT, FLEXIBLE, NON-HARDENING, PREFORMED, BITUMINOUS MASTIC (RAM-NEK, OR APPROVED EQUAL.) THIS MASTIC SHALL BE APPLIED IN SUCH A MANNER THAT NO SURFACE WATER OR GROUND WATER INFLOW CAN ENTER THE STRUCTURE THROUGH GAPS BETWEEN BARREL SECTIONS OR CONE SECTIONS AND ADJUSTING RINGS.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING JULIE AS WELL AS LOCAL CABLE TV COMPANIES AND THE VILLAGE FOR LOCATION OF EXISTING UNDERGROUND UTILITIES. THE FACILITIES SHALL BE LOCATED PRIOR TO ANY WORK WITHIN ANY EASEMENT, R.O.W, OR SUSPECTED UTILITY LOCATION.
- 9. ALL EXISTING STRUCTURES SHALL BE ADJUSTED AS NECESSARY TO MATCH OPOSED GRADES & LANDSCAPING.
- 10. ALL UTILITIES SHALL BE INSTALLED ON CRUSHED STONE BEDDING (CA-11) WITH A MINIMUM THICKNESS OF 4 INCHES. THE BEDDING MATERIAL SHALL BE PLACED AND COMPACTED TO 12" ABOVE THE TOP OF PIPE. BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED.
- 11. WATERMAIN COVER SHALL BE 5.5 FEET FROM FINISHED GRADE TO TOP OF PIPE.
- 12. SEE PROJECT DOCUMENTS FOR WATERMAIN MATERIAL SPECIFICATIONS.

## HORIZONTAL DIRECTIONAL DRILLING METHOD

- 1. CONTRACTOR SHALL EXAMINE THE SITE(S) INDICATED. THE LIMITS OF SURFACE EXCAVATION SHALL BE LOCATED AT VALVE VAULTS, FITTINGS AND INTERCONNECTIONS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE BOREHOLE AND RECEIVING HOLE SUFFICIENTLY BACK FROM THE LIMITS OF EXCAVATION TO ALLOW CONNECTION TO THE HORIZONTALLY DRILLED PIPE. PITS SHALL BE OF LENGTH AND WIDTH NECESSARY TO INSTALL PIPES AND SIZED TO FIT AREAS AVAILABLE FOR WORK.
- 2. PROVIDE ALL REQUIRED SEDIMENT AND EROSION CONTROL MEASURES TO PREVENT DRILLING FLUID AND BOREHOLE CUTTINGS FROM ENTERING ADJACENT STORM DRAINAGE DITCHES OR PIPING.
- 3. THE DIRECTIONAL DRILLING FOUIPMENT SHALL CONSIST OF A DIRECTIONAL DRILLING RIG OF SUFFICIENT CAPACITY TO PERFORM THE BORE AND PULLBACK THE PIPE, A DRILLING FLUID MIXING AND DELIVERY SYSTEM OF SUFFICIENT CAPACITY TO SUCCESSFULLY COMPLETE THE CROSSING, A GUIDANCE SYSTEM TO ACCURATELY GUIDE BORING OPERATIONS AND TRAINED AND COMPETENT PERSONNEL TO OPERATE THE SYSTEM. ALL EQUIPMENT SHALL BE IN GOOD, SAFE OPERATING CONDITION WITH SUFFICIENT SUPPLIES, MATERIALS, AND SPARE PARTS ON HAND TO MAINTAIN THE SYSTEM IN GOOD WORKING ORDER FOR THE DURATION OF THE PROJECT.
- 4. THE DIRECTIONAL DRILLING MACHINE SHALL CONSIST OF A HYDRAULICALLY POWERED SYSTEM TO ROTATE, PUSH AND PULL HOLLOW DRILL PIPE INTO THE GROUND AT A VARIABLE ANGLE WHILE DELIVERING A PRESSURIZED FLUID MIXTURE TO GUIDABLE DRILL (BORE) HEAD. THE MACHINE SHALL BE ANCHORED TO THE GROUND TO WITHSTAND THE PULLING. PUSHING. AND ROTATING PRESSURE REQUIRED TO COMPLETE THE INSTALLATION. THE HYDRAULIC POWER SYSTEM SHALL BE SELF CONTAINED WITH SUFFICIENT PRESSURE AND VOLUME TO POWER DRILLING OPERATIONS. HYDRAULIC SYSTEM SHALL BE FREE OF LEAKS. RIG SHALL HAVE A SYSTEM TO MONITOR AND RECORD MAXIMUM PULLBACK PRESSURE DURING PULLBACK OPERATIONS. THE RIG SHALL BE GROUNDED DURING DRILLING AND PULLBACK OPERATIONS.

## HORIZONTAL DIRECTIONAL DRILLING METHOD (CONTINUED)

- 5. THE DRILL HEAD SHALL BE STEERABLE BY CHANGING ITS ORIENTATION AND SHALL PROVIDE THE NECESSARY CUTTING SURFACES AND DRILLING FLUID JETS.
- 6. PILOT HOLE SHALL ESTABLISH THE HORIZONTAL PLANS OF THE PIPELINE. A PLOT OF LENGTH VERSUS ELEVATION VERSUS LEFT/RIGHT VARIANCE WILL DICTATE THE ACTUAL AS-BUILT PLAN AND PROFILE OF THE PIPELINE. DATA FEEDBACK AND ELECTRONIC GUIDANCE SYSTEMS AND SUPPLEMENTAL SURFACE TRACKING SYSTEMS SHALL BE USED TO PROVIDE CONFIRMATION OF POSITION. MINIMUM DEPTHS ARE INDICATED ON THE DRAWINGS. PIPES SHALL BE INSTAL AT GREATER DEPTHS, IF NECESSARY, TO PERMIT MOVEMENT OF TRAPPED AIR AIR RELEASE HIGH POINTS. AVOID UNDERGROUND OBSTRUCTIONS BY STEERING HORIZONTALLY AROUND THEM. PIPE MAY BE INSTALLED AT GREATER DEPTHS FACILITATE THE INSTALLATION IF THE PROPOSED GREATER DEPTH IS REVIEW AND APPROVED BY ENGINEER BEFORE INSTALLATION.
- 7. REAMING SHALL CONSIST OF USING AN APPROPRIATE TOOL TO OPEN THE PILOT HOLE TO A SLIGHTLY LARGER DIAMETER THAN THE CARRIER PIPELINE. THE PERCENTAGE OVER SIZE SHALL DEPEND ON SOIL TYPES, SOIL STABILITIE DEPTH, DRILLING FLUID HYDROSTATIC PRESSURE, ETC. NORMAL OVERSIZING BE FROM 120 TO 150 PERCENT OF THE CARRIER PIPE DIAMETER. DRILLING F SHALL BE FORCED DOWN THE HOLE TO STABILIZE THE HOLE AND TO REMOVE
- 8. PULL BACK THE ENTIRE PIPELINE LENGTH IN ONE SEGMENT BACK THROUGH THE DRILLING FLUID ALONG THE REAMED HOLE PATHWAY. PROPER PIPE HAND CRADLING, BENDING MINIMIZATION, SURFACE FORCE READINGS, CONSTANT INSE VELOCITY, DRILLING FLUID FLOW CIRCULATION/EXIT RATE, AND FOOTAGE LEN INSTALLED SHALL BE RECORDED. THE PULL-BACK SPEED SHALL BE WITHIN TH PIPE MANUFACTURER'S RECOMMENDATIONS. ANY BITS, DRILLS, REAMERS, OR TOOLS LOST OR STUCK IN THE HOLE SHALL BE REMOVED AT CONTRACTOR'S E IF TOOLS CANNOT BE READILY REMOVED, CONTRACTOR MAY, AT CONTRACTORS ABANDON THE HOLE. NO PAYMENT SHALL BE MADE FOR ANY LOST EQUIPMENT MATERIAL, OR WORK ON ABANDONED HOLES.
- 9. AS-BUILT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTORS BASED UPON HIS PIPE LOG DATA. AS-BUILT DRAWINGS SHALL BE CERTIFIED AS TO ACCUF BY THE CONTRACTOR.
- 10. A VARIATION GREATER THAN 6-INCHES FROM THE HORIZONTAL PLAN OR DESIGNATED GRADE IS SUFFICIENT REASON FOR REJECTION OF THE PIPE, AND PIPE SHALL BE RE-BORED TO PROPER GRADE IF SO DIRECTED BY ENGINEER NO COST TO DEPARTMENT.
- 11. DRILLING FLUID TO BE USED TO FACILITATE INSTALLATION OF THE PIPE SHALL BE ADJUSTED WITHIN ACCEPTABLE LIMITS SUCH THAT GROUND HEAVING AND SUBSURFACE CAVITY FORMATION THROUGH EROSION ARE PREVENTED. DRILLING FLUID SHALL BE BENTONITE CLAY MIXTURE. CONTRACTOR MAY USE A POLYMER ADDITIVE AT CONTRACTOR'S OPTION. FLUID AND ADDITIVES SHAL NOT BE HAZARDOUS TO THE ENVIRONMENT.
- 12. CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO PREVENT DAMAGE TO EXISTING UTILITIES WHERE THEY CROSS EITHER ABOVE OR BELOW THE PROPOSED HORIZONTAL DIRECTIONALLY DRILLED PIPE. EXPOSING THE EXISTINUTILITY PRIOR TO INSTALLING THE DIRECTIONALLY DRILLED PIPE MAY BE NECESSARY TO VERIFY APPROPRIATE SEPARATION IS BEING MAINTAINED AND THAT NO DAMAGE WILL OCCUR TO THE EXISTING UTILITY. THE COST FOR TH EXPLORATORY EXCAVATIONS IS INCIDENTAL.
- 13. SPENT DRILLING FLUID AND CUTTING SHALL BE CONFINED TO VICINITY OF DRILLING RIG. ANY DRILLING FLUID WHICH ENTERS THE PIPE SHALL BE REMOVED BY FLUSHING OR OTHER SUITABLE MEANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP AND RESTORATION, SHOULD THERE BE A BOREHOL BLOW OUT DUE TO EXCESSIVE PRESSURE IN THE DRILLING FLUID. NO ADDIT PAYMENT SHALL BE MADE FOR CLEAN-UP COSTS REQUIRED BY DEPARTMENT. ENGINEER, OR REGULATORY AGENCIES DUE TO A LOSS OF DRILLING FLUID, THIS MAY INCLUDE A FULL TIME VAC TRUCK TO COLLECT CUTTINGS, LEAVINGS, OR DRILLING FLUID.
- 14. PITS EXCAVATED TO PERMIT CONNECTION OF BORED PIPE SHALL BE BACKFILLED, AND DISTURBED SURFACE SHALL BE RESTORED.
- 15. LOGS SHALL BE KEPT GIVING THE HORIZONTAL AND VERTICAL POSITION OF THE WATER MAIN AT 50-FOOT INTERVALS ALONG THE PIPE POINTS TO CONFIRM ITS CONFORMANCE TO SPECIFIED DEPTH AND LINE SHOWN ON THE DRAWINGS. NO PAYMENT FOR ANY LENGTH OF PIPE SHALL BE MADE WITHOUT A LOG ACCOMPANYING IT. LOG SHALL ALSO CONTAIN A SUMMARY OF STRESSES ON PIPE DURING INSTALLATION.

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	DIRECTIONAL DRILLING CONTINGENCY PLAN								
,	PRIOR TO STARTING ANY DIRECT DRILLING MOBILIZATION, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE ENGINEER: THIS INFORMATION WILL THEN BE FORWARDED TO VILLAGE FOR THEIR REVIEW.								
	GENERAL INFORMATION REQUIREMENTS								
	1. NAME, ADDRESS AND PHONE NUMBER OF ONSITE DRILLING COMPANY REPRESENTATIVE;								
LLED	2. MATERIAL SAFETY DATA SHEETS (MSDS) FOR DRILLING MUD CONSTITUENTS;								
G	3. NAME, ADDRESS AND PHONE NUMBER OF ANIONIC POLYMER VENDOR;								
TO ED	4. CATALOG CUT SHEETS FOR EACH RECOMMENDED POLYMER, DIRECTIONS FOR USE AND ANY LIMITATIONS NOTE, CATIONIC POLYMERS ARE TOXIC TO FRESHWATER AQUATIC LIFE AND WILL NOT BE PERMITTED ON THIS PROJECT. ANIONIC POLYMERS WILL BE REQUIRED. POLYMERS ARE REQUIRED TO BE AVAILABLE ONSITE IF DRILLING WILL BE UNDER OR NEAR STREAMS OR OTHER WETLANDS;								
SHALL LUID SOIL	5. A BRIEF NARRATIVE DISCUSSING THE DIRECTIONAL DRILLING OPERATION, IDENTIFICATION OF LIKELY PROBLEM LOCATIONS AND PROPOSED METHODS OF ENSURING THAT FRAC OUTS DO NOT OCCUR OR ARE PROPERLY CONTAINED.								
	OPERATIONAL REQUIREMENTS								
ETRO, ERTION GTH HE	<ol> <li>AT LEAST ONE VACUUM TRUCK MUST BE ONSITE DURING ALL DRILLING OPERATIONS AND AT LEAST ONE ADDITIONAL VACUUM TRUCK SHALL BE READILY AVAILABLE OR ON STAND-BY AT A NEARBY LOCATION, AS APPROPRIATE.</li> </ol>								
EXPENSE. OPTION,	2. AT LEAST ONE FULL TIME PERSON TO WALK THE DRILLING ROUTE AND IDENTIFY FRAC OUTS AND COORDINATE REMEDIATION.								
N RACY N IT	3. IF A FRAC OUT IS IDENTIFIED, THE CONTRACTOR SHALL IMMEDIATELY STOP DRILLING, WAIT AT LEAST 30 MINUTES, INJECT A OUANTITY OF DRILLING FLUID WITH A VISCOSITY EXCEEDING 120 SECONDS AS MEASURED BY A MARCH FUNNEL AND THEN WAIT ANOTHER 30 MINUTES. IF MUD FRACTURE OR RETURNS LOSS CONTINUES, CONTRACTOR WILL CEASE OPERATIONS AND NOTIFY ENGINEER. CONTRACTOR SHALL PROCEED TO CONTAIN FRAC OUT MATERIAL USING SILT FENCE, PLASTIC OR OTHER ACCEPTABLE BARRIER MATERIAL AND PROVIDE ADEQUATE VACUUM TRUCKS TO CONTAIN AND REMOVE MATERIAL FROM THE SITE. WITHIN WATER WAYS THE CONTRACTOR SHALL PROVIDE A TURBIDITY BARRIER OR CONTAINMENT BOX, AS APPROPRIATE.								
3	4. VERIFICATION OF ADEDUATE POLYMER STORED ONSITE TO TREAT AT LEAST ONE RELEASE INTO WETLANDS OR STREAMS WITH THE UNDERSTANDING THAT ADDITIONAL POLYMER WILL BE PROCURED IF THE FIRST IS USED.								
_L	5. FRAC OUTS IN UPLAND AREAS THAT DO NOT AFFECT WETLANDS OR OTHER SENSITIVE AREAS ARE TO BE SUMMARIZED IN A WEEKLY REPORT TO THE ENGINEER DETAILING THE AMOUNT OF DRILLING MUD RELEASED, THE METHOD OF CONTAINMENT, REMEDIATION METHOD USED AND ANY ADDITIONAL RELEVANT INFORMATION.								
NG	6. THE ENGINEER MUST BE CONTACTED IMMEDIATELY IF A FRAC OUT AFFECTS WETLAND AREAS. APPROPRIATE TELEPHONE NUMBERS SHOULD BE A PART OF THE CONTINGENCY PLAN. EACH FRAC OUT MUST BE SUMMARIZED IN DAILY REPORTS TO								
IESE	THE ENGINEER DETAILING THE AMOUNT OF DRILLING MUD RELEASED, THE METHOD OF CONTAINMENT, REMEDIATION METHOD USED AND ANY ADDITIONAL RELEVANT INFORMATION.								
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